

**Florida Department of
Agriculture and
Consumer Services**



2004

ANNUAL REPORT



CHARLES H. BRONSON
Commissioner



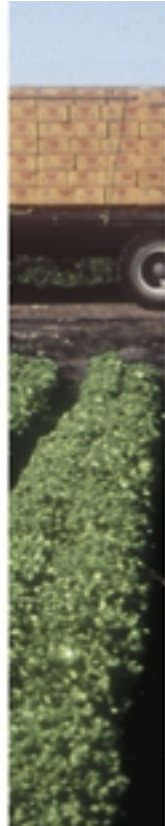
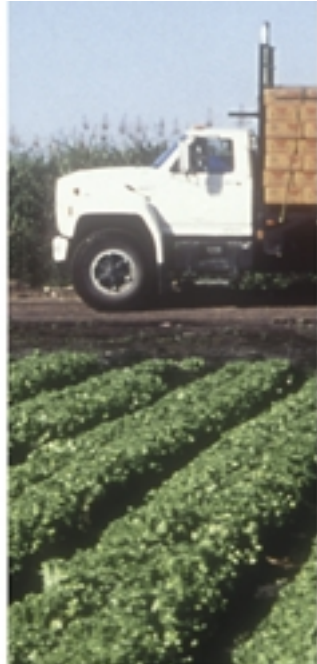


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Introduction



griculture employs approximately 645,000 people in Florida and has an overall economic impact estimated at \$62 billion each year. Supporting this important economic engine while safeguarding the public is the stated mission of the Florida Department of Agriculture and Consumer Services. The Department may be best known for the assistance it provides to farmers and ranchers, but its wide-ranging activities actually protect the health, wellbeing and quality of life of every Floridian.

The Department ensures the safety and wholesomeness of food through rigorous inspection and testing programs. Department personnel monitor fruits and vegetables for pesticide residues, investigate incidents of food-borne illness, and regularly inspect grocery stores and food-processing plants to make sure they are clean and safe.

The Department is Florida's lead agency for consumer protection. Staffed by over 20 full-time analysts, the Department's 1-800-HELPFLA consumer hotline received 240,468 calls this year, making it one of the busiest consumer hotlines in the nation. The Department administers the new vehicle Lemon Law and regulates a wide variety of businesses, including motor vehicle repair shops, travel agencies and health clubs. Consumer education is provided through television and radio spots, brochures and other printed materials, the Department's web site, and public presentations.

In order to safeguard Florida's agriculture and the state's consumers, the Department works vigilantly to prevent, control, and eradicate plant and animal pests and diseases. Other programs offered in support of agriculture include statistical reporting services, fruit and vegetable inspection, and license and bond services. The Department certifies aquaculture facilities; trains farm workers in the safe application of pesticides; and tests seed, feed and fertilizer for purity and label accuracy.

The Department plays an important role in the continued growth of the state's economy through its aggressive promotion of Florida-grown products. Florida's 13 State Farmers' Markets assist with the marketing of fresh produce and livestock within the state, while the Department's many foreign trade missions attract international buyers. The ongoing "Fresh from Florida" marketing campaign has been very successful in raising public awareness about Florida agriculture and increasing sales.

The Department's programs are constantly evolving to keep pace with the times. Since September 11, 2001, amid growing concern about homeland security, the Department has utilized more than \$17 million to prepare for and prevent bioterrorism and agri-terrorism events. The Department's Food Laboratory is a national leader in food bioterrorism preparedness. This year, food inspection personnel attended a two-day workshop focusing on food security. The Department is also working to improve the protection of Florida's borders: A new agricultural interdiction station on Interstate 10 near the Alabama/Florida line, along with four new mobile gamma ray units, will help prevent trucks carrying dangerous cargo from entering the state.

The health of Florida's agricultural economy is intimately connected to the health of the natural environment. In order to assure the continued productivity of Florida's land, the Department strives to practice the best environmental safeguards. The Department manages pesticides to avoid groundwater contamination and protect federally listed endangered species. It works to control invasive exotic plants and animals that threaten agriculture and natural ecosystems. Collaborating with growers and other agencies, the Department develops Best Management Practices that conserve soil and water while maintaining agriculture's economic viability. In addition, the Department provides responsible stewardship of Florida's 990,000 acres of state forest land.



Message

FROM THE COMMISSIONER

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his past year was an eventful one for the Florida Department of Agriculture and Consumer Services. As we worked to fulfill our broad range of responsibilities to Florida's farmers and consumers, we met with a great number of challenges – and we overcame them with great diligence and great success.

Our efforts to protect the public were enormous and varied: We worked to improve the Florida's bio-security and food security, enforced the nationwide ban on the dangerous dietary supplement ephedra, and went after food companies whose products failed to live up to the claims on their labels. We lent support to the agriculture industry, the bedrock of our state's economy, by battling new and emerging plant and animal diseases, fighting unfair competition, and promoting Florida-grown products to the world.

In recent years, many Southern states have experienced a decline in agricultural sector production, but Florida has not followed the downward trend. I believe the Department's aggressive marketing efforts have played a major role in the state's continued agricultural productivity. Since Florida farmers know we are continually expanding markets for their products, they can plant for the future with a degree of confidence.

The Department's 2004 spring produce marketing promotion generated \$254 million in additional retail sales of Florida-grown fruits and vegetables. Our "Florida Wild and Wonderful Shrimp" marketing campaign provided a much-needed boost to the state's shrimp industry, which has suffered in recent years from the influx of imports.

With 25 international airports and seaports, Florida is extremely vulnerable to the introduction of plant and animal pests and diseases. After verifying the presence of sudden oak death (SOD) on California plants in five Florida nurseries in March 2004, the Department took immediate and effective action to prevent the establishment of this devastating plant disease in our state. SOD has killed thousands of oaks in California since the mid-1990s and poses a tremendous threat to Florida's horticulture industry, which is the second largest in the nation.

Our efforts to prevent, control, and eradicate animal and livestock diseases were furthered by the completion of a new Biological Safety Level 3 laboratory in Kissimmee. At this state-of-the-art facility, scientists are now able to safely test for highly contagious animal diseases such as foot-and-mouth disease and bovine spongiform encephalopathy (mad cow disease). Scientists at the lab can also test for a wide variety of potential biological agents that could pose a threat to Florida's homeland security.

Improving Florida's preparedness for natural or manmade disasters is just one of the ways the Department works to safeguard the public. We also regulate pesticide usage, fight wildfires, and perform countless inspections and tests to keep unsafe or unfit food out of your grocery cart. When the federal ban on ephedra went into effect in April 2004, our inspectors did spot checks across the state to make sure this hazardous product was off the shelves. In the midst of the low-carb diet craze, the Department took legal action against companies who mislabeled diet products by understating the amount of sugar or carbohydrates they contained.

The Florida Department of Agriculture and Consumer Services offers a truly amazing array of programs and services that are critical to the state's farmers and its consumers. I've only just briefly touched on a few of them here. This annual report will help complete the picture.

Sincerely,



Charles H. Bronson
Commissioner of Agriculture



Supporting

FLORIDA AGRICULTURE



Statistical Reporting

R

eliable information is essential to making production, marketing and policy decisions for the agricultural community. The Florida Department of Agriculture and Consumer Services shares in a cooperative federal/state program responsible for collecting and disseminating Florida agricultural statistics. Information on the state's major commodities is gathered through onsite producer surveys, voluntary mail questionnaires, and telephone and personal interviews. Statistics compiled from these data are available in more than 200 reports issued annually.

In the past year, the public relations efforts of the Florida Agricultural Statistics Service (FASS) included staffing an informational booth at industry trade shows for citrus and cattle. The booth allows FASS to promote its role in the industry and increase the visibility of its reports.



Greenhouse and Nursery Production

The total value of Florida greenhouse and nursery production exceeded \$1.5 billion in 2003. The foliage and floriculture industry contributed \$823 million, down from \$833 million in 2002.

Berries and Melons

Strawberry production for 2003 was down slightly from the year before, resulting in cash receipts of \$129 million compared to \$153 million in 2002. Slight decreases

in prices and production for watermelons resulted in a decrease in total value to \$61.9 million in 2003.

Field Crops

Potato production in 2003 decreased from the previous year, resulting in cash receipts of \$106 million to growers. Sugarcane production was up from the previous year, and total cash receipts reached \$560 million in 2003. Cash receipts for peanuts increased to \$63.5 million, due to increased production and a higher average price in 2003. Tobacco growers produced 11 million pounds of tobacco, valued at \$19.6 million in 2003. Significant increases in production for cotton lint and cottonseed produced cash receipts of \$31.1 million in 2003, compared to \$20.9 million in 2002.

Other Fruits and Nuts

Receipts for other fruits and nuts, such as avocados, blueberries, mangos and pecans, at \$99.5 million, were slightly higher than in 2002.

Dairy

A decrease in milk production in 2003 resulted in decreased cash receipts of \$330 million compared to \$352 million in 2002.

Cattle and Calves

Beef cow numbers decreased slightly in 2003, but higher prices resulted in cash receipts for all cattle and calves of \$348 million compared to \$333 million in 2002.

In 2003, Florida's agricultural cash receipts amounted to \$6.45 billion, 3.2 percent lower than in 2002. Cash receipts were lower for oranges, grapefruit, tomatoes, sweet corn, potatoes, green peppers and floriculture, and higher for cattle and calves, sugarcane, peanuts and eggs. Florida leads the nation in cash receipts for oranges and sugarcane and ranks second in cash receipts for tomatoes, strawberries, and greenhouse and nursery crops. Florida leads the nation in production of citrus, sugarcane, foliage plants, cut floral greens, and tropical fish.

Citrus

An initial citrus production forecast is issued in October and modified monthly through the citrus season based on fruit size measurements and observations on droppage. These forecasts are based exclusively on objective data obtained directly by field personnel, including an extensive limb count survey conducted from July into September to estimate fruit set per tree. Florida's citrus growers produced 242 million boxes of all oranges and 40.8 million boxes of grapefruit in the 2003-2004 season.

Cash receipts for all citrus crops sold in 2003 totaled \$1.23 billion compared to \$1.48 billion in 2002. Citrus accounted for 19 percent of all cash receipts in 2003.

Vegetables

Cash receipts for all vegetables amounted to \$1.26 billion, which was 19 percent of all cash receipts in 2003. Tomatoes, peppers, sweet corn, cucumbers, and snap beans accounted for the largest amount of sales among vegetable crops.

Poultry and Eggs

Egg sales in 2003 totaled \$145 million, up from \$109 million in 2002. Broiler production was down slightly in 2003 and sales decreased to \$179 million from \$196 million in 2002.

Aquaculture

Aquaculture contributed \$99 million to total cash receipts. Tropical fish sales accounted for over 49 percent of all aquaculture sales. Aquatic plants and clams accounted for another 35 percent of sales in this category.

Honey

Florida was third in the nation in honey production in 2003 (behind California and North Dakota) with 14.9 million pounds valued at \$20.1 million. There were an estimated 210,000 colonies in the state in 2003.

Fruit and Vegetable Inspection

The Department's Division of Fruit and Vegetables serves as a third party to provide on-request inspections for the purpose of certifying the quality and condition of produce shipped in and out of the state to national and international markets. The Department's services, provided in cooperation with the U.S. Department of Agriculture, enhance the marketability of fruit and vegetables produced and imported into Florida.

Department inspectors and personnel spent more than 264,880 hours inspecting 13,818,899 tons of product in processing plants, packing houses, terminal markets and shipping points during the 2003-2004 season.

Committed to meeting the needs of Florida's fruit and vegetable industries through fiscally responsible quality assurance and technical assistance services, the Department continually strives to find innovative and cost-effective methods of inspection. More than 60 percent of this year's shipments of fresh citrus was inspected under the division's alternate inspection program known as Partners in Quality. Florida's avocado industry is now utilizing the program to reduce costs to industry.

The Department continues to pursue advanced technology as a way to streamline information transfers and limit redundant clerical activity. In 2003-2004, the Department

worked with Florida's peanut industry to create an automated inspection tool to improve inspection efficiency and better facilitate information transfers between peanut buying points and government agencies.

License and Bond Service

The Department continued its support of Florida agriculture by conscientiously administering Florida's Dealers in Agricultural Products Law. This law ensures that Florida producers of agricultural products covered by the license and bond provisions receive proper accounting and payment for their products. The Bureau of License and Bond issued 4,276 licenses and collected



\$564,653 in license fees during fiscal year 2003-2004. The bureau managed \$72,841,731 in bond protection for Florida growers.

Complaints against dealers in agricultural products must be filed within six months from the date of sale and total a minimum of \$250. During fiscal year 2003-2004, bureau

associates settled 139 dealer complaints in fiscal year 2003-2004 and recovered \$787,456.01 on behalf of Florida agricultural dealers.

The Department closely monitors dealers to make sure they maintain adequate bonds to protect Florida growers. Department associates conducted 624 bond and compliance audits of dealers' records during the year. These audits are designed to: ensure that bond amounts are maintained; determine whether unlicensed dealers were exempt from license and bond requirements; determine if prospective licensees were conducting business in a manner requiring licensure; and document violations of Department enforcement actions.

For fiscal year 2003-2004, the Bureau of License and Bond transmitted 231 cases to the Office of General Counsel for enforcement. Fifty-one cases in process were retained by the Bureau of License and Bond as of June 30, 2003. Of the 282 cases processed by the bureau for the fiscal year including cases processed through the Office of General Counsel, 167 cases were closed. Of the cases closed, 40 were initiated by a finding of probable cause but rescinded because no violation occurred; 36 were closed because the dealer either ceased operations or agreed to operate under an exemption; and 91 resulted in licenses being issued. The Office of General Counsel retained 34 cases as of June 30, 2004, for further handling. During fiscal year 2003-2004, the Department collected \$38,204 in administrative fines from license and bond violations. Enforcement actions resulted in an additional \$1,794,740 of bond protection for Florida growers.

State Farmers' Markets

The Bureau of State Farmers' Markets manages four major program initiatives: State Farmers' Markets; Community Farmers' Markets; Women, Infants, and Children/Farmers' Markets Nutritional Program (WIC/FMNP); and County Fair permitting.

State Farmers' Markets tenants and clients marketed \$690 million in wholesale value of produce, livestock, and value-added products during fiscal year 2003-2004. The bureau operated 13 wholesale farmers' markets and one livestock auction market during the fiscal year. These markets offer a mix of wholesale and retail produce, auction cattle, and attendant services such as farm supply, restaurants, and brokerage sales and shipping businesses. At year's end the available space for market tenants was 89 percent occupied for a total of more than 1.9 million square feet of warehouse, office and parking space.

More than 170 farmers operating at over 25 community retail markets participated in the Women, Infants, and Children/Farmers' Markets Nutritional Program (WIC/FMNP) this year. By encouraging consumption of fresh



fruits and vegetables by WIC mothers and children, this program promotes a healthy diet while boosting farmers' sales at participating locations. The program was offered in 16 counties and provided over 35,000 WIC recipients with information about good nutrition and the importance of fresh fruits and vegetables in their daily diets.

The County Fair permitting section issued permits for 50 fairs. Approximately \$300,000 was distributed to these fairs and other public organizations as agricultural premium and awards reimbursements. These awards encourage participation by Florida's youth in agricultural programs.

The Community Farmers' Market program assisted in the establishment of four new community farmers' markets, bringing the total number of markets in operation to 65.

Livestock and Domestic Animals

Through its Division of Animal Industry, the Department serves the animals and citizens of Florida by preventing, controlling and eradicating certain infectious or communicable diseases of livestock and other domestic animals. In enforcing Florida's animal health regulations, the Department also works to protect the state from animal pests and diseases that threaten economic and public health.

The division works to prevent, control and eradicate animal diseases by:

- ◆ Detecting diseases by inspection and testing of livestock on farms/ranches, monitoring livestock premises and livestock for disease activities, and encouraging producers to participate in Best Management Practices (BMPs) to assure safe and wholesome food products.
- ◆ Testing livestock using state-of-the-art animal-related diagnostic laboratory procedures.
- ◆ Promoting and mandating healthy, sanitary and humane care of livestock, vaccination of livestock, and identification of the origin and health status of imported animals.
- ◆ Regulating, administering and enforcing laws identifying the origin and health status of imported animals via permits and health certificates.
- ◆ Monitoring companion animal health issues, consumer protection assistance, and support of rule development and legislative support to ensure the overall health of small animal populations and industries in Florida.
- ◆ Providing information to livestock producers, private practitioners and the public about animal diseases through news releases, brochures, the Internet and personal visits.
- ◆ Developing, implementing and practicing emergency response plans in the event of foreign animal diseases and other natural or man-made disasters affecting animals and animal food productions.

Animal Disease Control

The Department is responsible for administering the state's animal disease prevention, control and eradication programs. In cooperation with USDA, the Department has moved beyond traditional perceptions of animal disease control and eradication programs by addressing public health issues and major economic impacts with the development of new programs. Recent outbreaks of Exotic Newcastle Disease, Pathogenic Avian Influenza in a few states and detection of a BSE-infected cow (Canadian origin) in Washington State emphasized the necessity of having a strong active animal disease monitoring program in place with an open line of communication with public officials. Rather than perceiving disease control and eradication programs as bureaucratic obstacles, the public is demanding that more be done to protect the nation's animal-origin food supply. These needs — as perceived by the producer, the consumer, and associated animal industries — will influence the overall acceptability and effectiveness of future disease control and eradication programs.

The Department's program activities take into consideration the changing face of animal industries in Florida and throughout the United States. Numerous species previously considered exotic or wildlife have now blurred the line between wildlife and agriculture. Government and industry both are faced with challenging learning curves in veterinary medicine and disease risk analysis for unfamiliar species, with few or no precedents. The Department recognizes the need to include these emerging animal industries with traditional livestock industries so they can coordinate and respond to a greater range of issues.

Animal/Premises Identification

The primary focus of the animal/premises identification program is to capture premises ID assignments in a multiple in-state database. Florida has been very fortunate to have a cooperative partnership with private industries and other state agencies receiving U.S. Department of Agriculture (USDA) funding for multi-species pilot projects. This builds on successful implementation of animal ID work with cervidae and a special project with Buck Island Ranch, a commercial/

research facility administered by the Archbold Biological Station funded from the John D. and Catherine T. MacArthur Foundation, and the University of Florida. The division was successful in applying for and receiving funding from USDA for the initiation of the National Animal Identification System (NAIS) program.

Animal Movement

The monitoring of the movement of livestock into Florida by the Official Certificate of Veterinary Inspection is the Department's first line of defense against the transmission or inadvertent importation of animal diseases. When diseases threaten livestock in other parts of the country, the Department may enact additional requirements for animals being imported into Florida. These requirements often include prior notification, permission and permitting from the Department before shipments are allowed in through the agricultural interdiction stations.

Health Certificates

During fiscal year 2003-2004, the Department processed 44,098 certificates representing more than 784,735 animals moving into or out of Florida. Beef and dairy cattle were the most common type of animal moving into Florida, along with horses, swine, goats and exotic species. All livestock transported into Florida are subject to certificate verification by Agricultural Law Enforcement officers.

Livestock Haulers' Permits

Any individual hauling or transporting livestock for hire on the public roads or highways in Florida must obtain a permit for each vehicle used for such purposes. A special livestock hauler license tag is issued to applicants for a fee by the Department, and is valid for 12 months. During fiscal year 2003-2004, the Department issued 1,817 livestock haulers' permits/tags. Issuance of permits improves control over livestock thefts and other illicit livestock operations.

Marks and Brands Program

Branding of livestock in Florida is not required, but if done, owners must register the mark or brand with the state. Registration is accomplished by applying to the

Department and submitting a fee of \$10. During fiscal year 2003-2004, the Department issued 197 new brand certificates, transferred 28 brands, and renewed 843 certificates. The total number of brands registered in Florida is 5,506.

Poultry

The Department's Poultry Disease Control Unit conducts inspections of various poultry facilities in Florida and tests flocks in accordance with USDA's National Poultry Improvement Plan (NPIP). In Florida, this involves approximately 29 hatcheries, 14 dealers, and more than 350 independent flocks. In conjunction with this program, there were 8,616 birds tested for pullorum typhoid (PT).

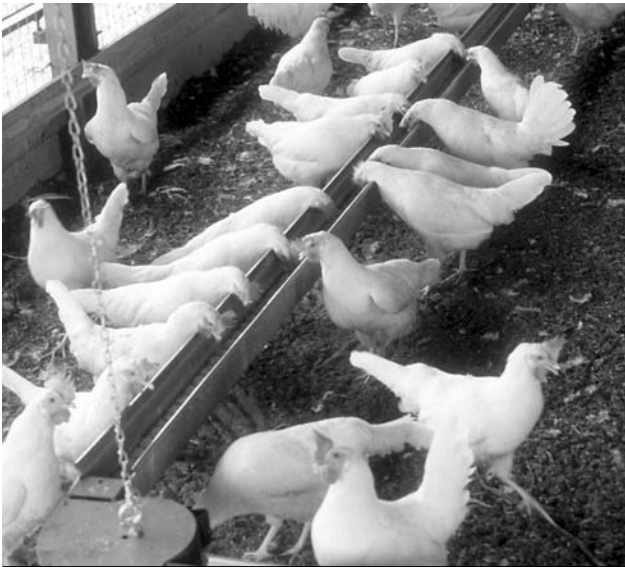
Department inspectors also inspect and test for PT on poultry coming into Florida fairs for exhibition. During 2003-2004, the Department inspected 6,158 birds and tested 3,995 birds exhibited at 47 fairs.

In the Miami-Dade County area, the Department administers a surveillance program for Avian Influenza (AI). During 2003-2004, 30 premises were tested for AI, with 240 serum samples and 105 environmental samples submitted to the Department's diagnostic laboratories.

Poultry activities included the testing and monitoring of commercial broiler breeding flocks for *Mycoplasma gallisepticum* (MG), *Mycoplasma synoviae* (MS) and AI. During 2003-2004, the Department tested 142 flocks and submitted 10,916 samples for MG and for MS to the Department's diagnostic laboratories for testing.

Due to recent outbreaks of Exotic Newcastle Disease (END) and Avian Influenza (AI), the Department developed and implemented the Avian Disease Surveillance Plan (ADSP) to monitor poultry for the presence of these diseases and initiate appropriate control/eradication measures if their presence is detected in Florida. The ADSP consists of five elements: education, training, sample collection, technology updates, and Agricultural Law Enforcement surveillance. During fiscal year 2003-2004, the Department inspected 221 premises for END and AI and submitted 2,878 samples to the Department's diagnostic laboratories.

The Department also conducts quarterly hatchery inspections at commercial egg, meat, and turkey companies. During fiscal year 2003-2004, the Department conducted 14 inspections and submitted 504 agar plate test samples. In addition, the Department conducts routine inspections of dead bird disposal methods at commercial poultry farms. There were 558 commercial poultry farms inspected during 2003-2004.



The Poultry Best Management Practices (BMPs) Quality Assurance Program was implemented in 2001; currently, 190 farms are enrolled in the program and inspected by the Department.

The Department adopted an online electronic permitting system for all poultry and eggs imported into the state or transshipped through Florida to other countries. During the fiscal year, 2,285 e-permits were issued, representing 28,210,844 live birds and 21,251,950 dozen hatching eggs.

Cattle

During the 2003-2004 fiscal year, 813,540 cattle were inspected at livestock markets.

Brucellosis

Brucellosis is a contagious, costly disease of ruminant animals that also affects humans. Although brucellosis can attack other animals, its main threat is to cattle, bison and swine. The disease is also known as contagious abortion or Bang's disease. In humans, it's known as

undulant fever because of the severe intermittent fever accompanying human infection, or Malta fever because it was first recognized as a human disease on the island of Malta. The disease is caused by a group of bacteria known scientifically as the genus *Brucella*. Three species of *Brucella* cause the most concern: *B. abortus*, principally affecting cattle and bison; *B. suis*, principally affecting swine and reindeer but also cattle and bison; and *B. melitensis*, principally affecting goats but not present in the United States. In cattle and bison, the disease currently localizes in the reproductive organs and/or the udder. Bacteria are shed in milk or via the aborted fetus, afterbirth, or other reproductive tract discharges.

There were 546 herds representing a total of 78,473 cattle tested in the field for brucellosis during fiscal year 2003-2004, and none were found to be infected. An additional 80,236 cattle were tested at slaughter. At livestock markets, 1,254 cattle were tested, with none found to be infected. During the same period, 124,411 cattle were vaccinated against brucellosis.

Tuberculosis

Tuberculosis (TB) is a contagious disease of both animals and humans. It is caused by three specific types of bacteria that are part of the *Mycobacterium* group: *Mycobacterium bovis*, *M. avium* and *M. tuberculosis*. Bovine TB, caused by *M. bovis*, can be transmitted from livestock to humans and other animals. No other TB organism has as great a host range as bovine TB, which can infect all warm-blooded vertebrates. *M. avium* can affect all species of birds, as well as hogs and cattle. *M. tuberculosis* primarily affects humans but can also be transmitted to hogs, cattle and dogs. During fiscal year 2003-2004, the Department tested 125 herds/2,991 cattle for tuberculosis; no cattle were found to be infected.

Transmissible Spongiform Encephalopathies

Transmissible Spongiform Encephalopathies (TSE), or prion diseases, are rare forms of progressive neurodegenerative disorders that affect both humans and animals and are caused by agents that produce changes in the brain. TSE typically have incubation periods ranging from several months to years before symptoms become

apparent. No conventional serologic test can identify TSE-infected animals, and so TSE are usually identified from the brain tissue of dead animals. There is no vaccine or cure for these diseases, and once symptoms appear, TSE are invariably fatal.

The TSE family of diseases includes Bovine Spongiform Encephalopathy (BSE); Scrapie, which affects sheep and goats; Transmissible Mink Encephalopathy (TME); Feline Spongiform Encephalopathy (FSE); Chronic Wasting

samples from Florida herds were tested by the National Veterinary Services Laboratory (USDA). All were confirmed negative.

Johne's Disease

Johne's Disease is a contagious, chronic and usually fatal infection that affects primarily the small intestine of ruminants. All ruminants are susceptible to Johne's Disease. Johne's Disease is caused by *Mycobacterium paratuberculosis*, a hardy bacteria related to the agents of

Bovine Spongiform Encephalopathy (BSE), widely referred to as "mad cow disease," was first diagnosed in 1986 in Great Britain and most recently in 2003 in Canada.

Disease (CWD) of deer and elk; and in humans, kuru, both classic and variant Creutzfeldt-Jakob Disease (CJD and vCJD), Gerstmann-Straussler-Scheinker syndrome, and fatal familial insomnia. TSE have also been reported in captive exotic ruminants, and in exotic and domestic cats. The agent isolated from several of these cases is indistinguishable from BSE in cattle, suggesting the occurrence of TSE in these species resulted from BSE-contaminated feed.

Bovine Spongiform Encephalopathy (Mad Cow Disease)

Bovine Spongiform Encephalopathy (BSE), widely referred to as "mad cow disease," was first diagnosed in 1986 in Great Britain and most recently in 2003 in Canada. A single BSE-infected cow discovered in Washington State in December 2003 was later found to originate from a Canadian herd. The isolated case generated a rapid response from state and USDA officials, and resulted in new control, testing and surveillance programs designed to rule out and prevent further cases in U.S. herds. The Department continues to work with federal and state partners to conduct surveillance and to prevent the introduction of BSE from foreign sources. During the 2003-2004 fiscal year, 929

leprosy and tuberculosis. The disease is worldwide in distribution. Signs of Johne's Disease include weight loss and diarrhea with a normal appetite. Several weeks after the onset of diarrhea, a soft swelling may occur under the jaw (bottle jaw). Bottle jaw, or intermandibular edema, is due to protein loss from the bloodstream into the digestive tract. Animals at this stage of the disease will not live very long, perhaps a few weeks at most. Signs are rarely evident until two or more years after the initial infection, which usually occurs shortly after birth. Animals are most susceptible to the infection in the first year of life.

For fiscal year 2003-2004, the Florida Voluntary Johne's Program had 366 dairy and beef operations enrolled. The Live Oak Diagnostic Laboratory conducted 10,258 tests. The state of Florida is successfully meeting the guidelines developed cooperatively with the USDA for continued funding of this program.

Chronic Wasting Disease

Chronic Wasting Disease (CWD) is a TSE of deer and elk. To date, this disease has been found only in cervids (members of the deer family) in North America. First recognized as a clinical "wasting" syndrome in 1967 in mule deer in a wildlife research facility in northern Colorado, it was identified as a TSE in 1978. CWD is a

progressive disease that attacks the brains of infected animals, causing the animals to become emaciated, display abnormal behavior, lose bodily functions and subsequently die. CWD has become of particular concern due to its lack of known prevention and treatment, lack of live animal diagnostic test, and unknown origin and means of transmission. There is no known relationship between CWD and any other TSE of animals or people, and there is no evidence that CWD poses any risk to human health.

On April 9, 2002, the Department issued an emergency rule relating to chronic wasting disease. Current growth and resultant rapid widespread movement in the cervidae farming industry are increasing the potential for the spread of CWD and other diseases of cervidae. Due to the potential threat CWD poses to Florida's captive and free-ranging cervid populations, the emergency rule enacted a 90-day ban on importation of cervidae from any state or location with reported cases of CWD and a 90-day restriction on importation of cervidae from all other states or locations. A permitting and reporting system was rapidly implemented

Montana, Nebraska, New Mexico, South Dakota and Wisconsin. The Department continues to work with the cervidae industry, USDA, and other state and federal agencies to prevent the introduction of CWD and conduct surveillance in farmed and wild cervidae populations in Florida. Currently, there are 184 cervidae herds enrolled in herd health plans. During the 2003-2004 fiscal year, 466 samples from free-ranging deer were submitted to the Kissimmee Diagnostic Laboratory, and all were reported as negative.

Small Ruminants (Sheep and Goats)
Scrapie

Scrapie is a fatal, degenerative disease affecting the central nervous system of sheep and goats. Five new flocks enrolled in the Complete-Monitored category of Florida's Voluntary Scrapie-free Flock Certification Program (SFCP) throughout the 2003-2004 fiscal year. No flocks were withdrawn from the SFCP during this period, increasing the total number of enrolled flocks by 15.6 percent to 32 flocks. Florida's number of flocks certified "scrapie-free" remains unchanged at two.

A total of 815 premises identification numbers have been issued to sheep and goat owners in Florida. All goat and/or sheep premises added since the last report are participating in the Mandatory Identification aspect of the Scrapie Eradication program. Each animal is officially identified with a unique combination of letters and numbers prior to movement from the premises for sale, breeding, show or exhibition purposes. The official ID is typically in the form of USDA-issued ear tags, although legible breed registry tattoos in combination with the registration papers may be used. Florida has 583 goat-only premises, 119 premises housing only sheep, and 113 instances of sheep and goats kept on the same premises.

Equine
Contagious Equine Metritis

Contagious Equine Metritis (CEM) is a highly contagious venereal disease that can affect all equids and is caused by the bacterium *Taylorella equigenitalis*. The infection can result in short-term infertility in mares that is sometimes associated with a vaginal discharge and, rarely, abortion. Mares can become unapparent carriers of the bacterium in their reproductive tracts and can shed the organism

by the Department to monitor interstate and intrastate movement of cervidae. The final rule for cervidae became effective on November 27, 2002. This rule requires all cervidae being imported into Florida originate from a herd that participates in an official CWD surveillance/prevention program and has been free of CWD for at least 60 months prior to importation.

CWD has been diagnosed in both captive and free-ranging elk, mule deer, white-tailed deer and black-tailed deer located in Canada, Colorado, Illinois, Kansas, Minnesota,





into the environment and transmit it through subsequent breeding. Stallions do not develop clinical signs but can carry the organism on their genitalia for years and spread the disease by breeding susceptible mares.

CEM is considered an exotic disease in the United States, which means it is not found in the native horse population. However, there are at least 25 countries and territories where CEM exists, including a number of the member states of the European Union. CEM is a serious venereal disease because it is highly contagious. There is no vaccine against CEM, but there are ways to detect infected horses and to rid infected stallions and mares of the bacterium via treatment and testing protocols.

Florida has 30 Approved CEM Quarantine Facilities to handle the CEM importation requirements for horses entering the United States. Last year, 176 imported stallions and mares were processed through these facilities. There were no positive horses detected.

Equine Infectious Anemia

Equine Infectious Anemia (EIA), also known as “swamp fever,” is an incurable blood-borne disease that affects only members of the equine species. It is transmitted primarily by large biting flies but may also be transmitted by contaminated needles and surgical instruments and through breeding. Once an animal is infected, it remains infected for the rest of its life. While some horses die from acute infections, most remain as seemingly symptomless carriers. However, infected

animals are still capable of transmitting the disease and pose a threat to healthy animals. There is currently no vaccine or effective treatment for this disease.

EIA is a disease of worldwide significance. In some foreign countries, the disease incidence may be as high as 50 percent or more. In the United States, it occurs in most every state; however, 90 percent of the cases occur in what is known as the “hot zone,” those states bordering the South Atlantic Coast, the Gulf of Mexico, and the Mississippi River Basin, including Oklahoma and Texas. Disease risk

in these areas is higher because environmental conditions are more favorable for prolonged insect vector seasons.

Florida’s equine industry continues to be a vital economy to the state, and the Department plays an important role in safeguarding this important state resource from the potential devastating effects of this disease. With support and cooperation from the state’s equine industries, Florida was one of the first states to implement an EIA disease control program.

Last year, more than 2.1 million horses were tested for EIA nationally. In Florida, more than 132,911 horses were tested, with only 18 reactors disclosed. On a national level, only 10 to 15 percent of the equine population is tested annually, but in Florida, more than 30 percent of the population is tested each year. Florida is located in the EIA “hot zone,” but the state’s EIA control program, coupled with strong support from the state’s equine industry, keeps the disease incidence at a very low rate (0.013 percent), which is well below the national level of 0.015 percent.

Equine Piroplasmosis

Equine Piroplasmosis (EP) is an animal disease caused by the parasitic organisms *Babesia equi* and *Babesia caballi*, and is primarily transmitted to horses by ticks. The greatest risk of introduction of this disease is through importation of horses from countries where EP is endemic.

Florida is the only state that monitors the status of horses imported from Puerto Rico and the U.S. Virgin Islands, where EP is endemic. Florida requires all horses to be negative for EP prior to shipment and to be retested 30 to 60 days after arrival. Last year, the Department issued 87 permits covering 115 horses, with negative results on all tests performed.

Arboviruses

Arthropod-borne viruses (arboviruses) are viruses that can be transmitted to humans and horses by mosquito bites. Arboviral infections in humans and horses may result in development of a fatal case of encephalitis: inflammation of the brain and spinal cord. These viruses are maintained in nature through continuous transmission between natural reservoir hosts (primarily wild birds) and certain species of mosquitoes (disease vectors). Humans and horses do not contribute to the spread of these diseases and, as such, are considered “dead-end” hosts. Although other animals are susceptible to arbovirus infections, humans and horses are most susceptible to developing clinical disease. The Department is actively involved in the monitoring of equine populations for Eastern Equine Encephalomyelitis (EEE) and West Nile Virus (WNV).

Eastern Equine Encephalomyelitis

Eastern Equine Encephalomyelitis (EEE) is one of several arboviruses transmitted by infected mosquitoes that may cause fatal encephalitis in humans and horses. Mosquitoes become infected with the virus after feeding on wild birds. Transmission of EEE from horse to horse or horse to human via mosquito bites is unlikely because humans and horses are poor reservoirs for the virus. In humans and horses, the mortality rate is extremely high: 50 percent or more in humans and 80 to 90 percent in horses.

EEE is most often detected in horses during the months of May through September. Each year, Florida reports 25-50 cases throughout the state. Many of these cases appear in the same areas year after year. Mosquito activity in Florida may occur on a year-round basis; therefore, cases of EEE may be reported during any given month. About every seven to 10 years, the number of cases reported reaches epidemic proportions and may be well over 100. In 2003, the

number of cases reached epidemic levels with 207 cases being reported. During the first eight months of 2004, only 32 cases had been reported.

West Nile Virus

West Nile Virus (WNV) is another mosquito-borne viral disease that may cause encephalitis in humans and horses, but unlike EEE, the clinical course of the disease is not as severe, and mortality rates are much lower: 25 to 30 percent in horses and less than 10 percent in humans.

WNV is commonly found in wild birds, humans and other vertebrate animals in Africa, Eastern Europe, Western Asia and the Middle East, but until 1999 had not previously been documented in the Western Hemisphere. During the late summer of 1999, WNV was identified in New York City for the first time. By the end of the year, cases in wild birds, humans and horses had been documented in three northeastern states. The virus survived the winter, and during 2000 continued to spread to 12 eastern coastal states.

By 2001, the virus had spread to 18 states, including Florida. More than 730 equine cases were confirmed, with 156 fatalities. Florida alone reported 492 cases with 82 deaths. In 2002, WNV expanded rapidly westward. Almost 1,500 equine cases were reported in 40 states. Approximately one-third of the affected horses died. Florida reported 499 cases with 92 deaths. In 2003, there were 117 equine cases reported. During the first eight months of 2004, only three equine cases were reported.

The Department continues to work closely with its other Arboviral Working Group partners to provide valuable surveillance data on equine cases. The EEE/WNV Equine Database has been an invaluable tool in tracking these diseases and reporting them to the working group in a timely manner. Early detection and reporting of arboviral cases help to warn citizens to take precautions against mosquito bites and to remind horse owners to ensure that their horses are appropriately vaccinated.

Swine

During the year, 17,538 swine were inspected at livestock markets. In the field, 21,937 swine were inspected, with 1,231 tested for swine brucellosis and 1,212 for pseudorabies.

Swine Brucellosis

The Department has discontinued the testing of slaughter swine for brucellosis at livestock markets as part of the National Swine Brucellosis Eradication Program. Instead, a slaughter surveillance program, in the process of development, is slated for the near future. Swine are still tested on farms if they wish to achieve Qualified/Validated status or Modified-Monitored/Validated status, provided they pass a risk assessment, which is administered by program individuals. There were 1,231 head tested for swine brucellosis in fiscal year 2003-2004.

Pseudorabies (Aujeszky's Disease)

Pseudorabies is a viral disease most prevalent in swine, often causing newborn piglets to die. Older pigs can survive infection, becoming carriers of the pseudorabies virus for life. Other animals infected from swine die from pseudorabies, which is also known as Aujeszky's disease and "mad itch." Infected cattle and sheep can first show signs of pseudorabies by scratching and biting themselves. In dogs and cats, pseudorabies can cause sudden death. The virus does not cause illness in humans.

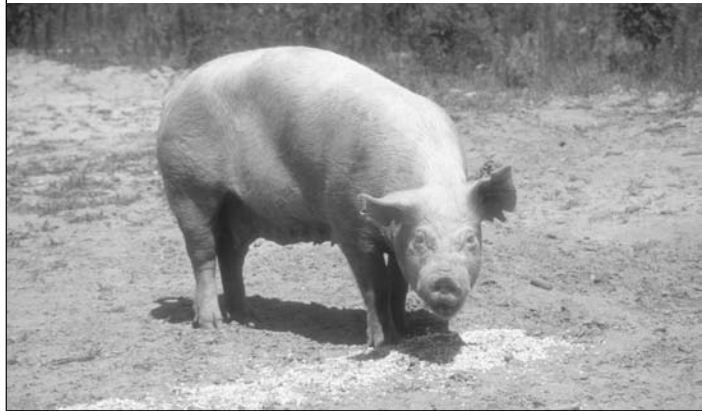
During fiscal year 2003-2004, the Department continued to make progress toward eradication of pseudorabies. There were 1,212 swine tested for pseudorabies during this time. Florida has advanced from a Stage III to a Stage IV status.

Garbage Feeders

During fiscal year 2003-2004, the Department permitted 100 garbage feeder operators, who collect edible waste food products that are cooked and fed to swine. The cooperative state-federal program implements the Swine Health Protection Act, which establishes standards for feeding waste to swine designed to prevent the introduction of foreign animal diseases such as Foot-and-Mouth Disease (FMD) and Classic Swine Fever (CSF) into U.S. herds. In 2003-2004, the Department conducted 2,285 facility inspections, inspecting a total of 121,416 garbage-fed swine for contagious and infectious disease.

Cervidae

Florida's captive cervid industry continues to grow. While this industry is licensed primarily by the Florida Fish and Wildlife Conservation Commission (FWC), the



Department is a partner working with disease control issues and importation policies. The Department also works with owners of captive cervid herds on disease management programs.

The USDA has begun a transition to incorporate captive cervid herds into each state's disease status for bovine brucellosis and tuberculosis. To meet these more stringent surveillance and disease control guidelines, management solutions must be developed for disease testing and eradication in cervid herds. The Department works with owners and managers of captive cervid herds to develop and maintain herd management strategies and herd health plans.

Since diseases affecting deer and elk often impact cattle, sheep, goats and other livestock populations, current and future disease eradication programs must incorporate all affected species. The Department works closely with FWC and other agencies to develop comprehensive disease management strategies that take into account both domestic and wildlife populations.

The Department continues to monitor the status of certain diseases affecting cervidae in other regions of the United States. Specific issues of concern are: 1) Michigan's ongoing battle with tuberculosis in their cervid and bovine populations, and 2) chronic wasting disease in deer and elk in western states.

Reptiles and Amphibians

The Department began a working relationship with the reptile industry in Florida and the United States in 1999 to address concerns about exotic ticks coming into the

state on reptile imports from foreign countries. Since then, the Department has gained a great deal of experience in working with these species and has collaborated with the reptile community to develop Best Management Practices for the industry.

Companion Animal and Small Animal Programs

During fiscal year 2003-2004, the Division of Animal Industry designated a separate program area to monitor companion animal health issues within the state and ensure compliance with existing statutes and rules affecting companion animals. Efforts included monitoring compliance with interstate and intrastate small animal movement requirements, health certification by accredited veterinarians in Florida and consumer protection and assistance.

A tracking system was implemented to address complaints involving health certification, consumer complaints concerning the sale of small animals (dogs and cats) covered by Florida law and departmental rules, and miscellaneous small animal issues. A total of 180 complaints were processed: 131 dogs, 14 cats, one bird, and 34 miscellaneous animals or services. The processed complaints involved 72 pet stores, 41 breeders, nine brokers, eight veterinary clinics, seven private contracts or sellers, two boarding kennels, five miscellaneous issues, and 36 other unidentified animals or issues. Mediation of claims by consumers resulted in refunds of purchases in the amount of \$18,000, and five cases were referred to the Office of Agricultural Law Enforcement for further investigation. Seventy-one educational letters were sent to veterinarians within Florida to ensure compliance with health certification requirements for the sale of small animals.

Emergency Management

In the aftermath of Hurricane Andrew in 1992, the Florida Comprehensive Emergency Management Plan (CEMP) was created. Florida adopted the Emergency Support Function (ESF) structure put forth in the Federal Response Plan, creating state counterparts for the 12 ESFs, functions which are common to most or all emergencies, then adding four more to cover the needs of Military Support, Public Information, Donations and Volunteers, and Law

Enforcement. A final Emergency Support Function, ESF-17, was added and Florida became the first state in the country to have an ESF dedicated to animal issues during emergencies and disasters.



Each ESF under the state's CEMP has a lead agency to coordinate various organizations and resources for that ESF. The Division of Animal Industry is designated as the lead agency for Emergency Support Function (ESF-17), Animal and Agricultural Issues, in the state's CEMP. ESF-17 is responsible for coordinating the response of county, state, federal and volunteer agencies in assisting cities and counties in animal and agricultural issues impacted by an emergency or natural disaster.

In order to effectively coordinate the efforts of multiple county, state, federal and volunteer organizations, a State Agricultural Response Team (SART) was formed. SART is an interagency program designed to coordinate planning and response to future emergencies and natural disasters in the state. SART involves experts at the Florida Department of Agriculture and Consumer Services, Florida Department of Community Affairs,

U.S. Department of Agriculture, and the University of Florida Cooperative Extension Service. In addition to helping establish response teams in each county, SART identifies county resources available for an emergency or disaster, promotes cooperation between state and county agencies, and trains personnel to respond to emergencies or disasters such as hurricanes.

Diagnostic Laboratories

Due to its extensive coastline, hospitable climate, and importation of an increasing number of non-native animal species, Florida occupies a critical position in the nation’s agricultural picture. The importation of animals poses the constant threat of the introduction of diseases, and the continued threat of terrorism raises concerns about the state’s vulnerability to deliberately introduced biohazards. To meet these challenges, the Department’s Diagnostic Laboratories are staffed with veterinarians and technicians who are highly trained in a range of diagnostic disciplines, including bacteriology, virology, molecular biology, toxicology, parasitology and pathology.

Thirty-seven diseases are considered potentially harmful to Florida’s animal industry or the general public and are listed as reportable to the Department. In addition to the

The Bureau of Diagnostic Laboratories received operating capital outlay funds for replacement equipment in the laboratories. Use of those funds is ongoing, and replacement equipment purchased during fiscal year 2003-2004 included an ELISA microplate washer and reader, biological safety cabinets, microscopes, histopathology equipment, incubators, centrifuges, ultra-temperature freezers, immunohistochemistry equipment, laboratory benchtop upgrades, PCR equipment, laboratory grade refrigerators, a gas chromatograph/mass spectrometer, and autoclaves.

The Diagnostic Laboratories processed 119,778 submissions, which comprised 2,079,576 procedures this year.

Kissimmee Animal Disease Diagnostic Laboratory

In fiscal year 2003-2004, the Florida Animal Disease Diagnostic Laboratories system completed construction of its first Level 3 Biosafety Laboratory at the Kissimmee Laboratory facility. This addition will provide rapid diagnostic procedures for diseases that are considered foreign in the United States and have been introduced unintentionally or through bioterrorism. The USDA designated the Kissimmee Laboratory as a part of a pilot

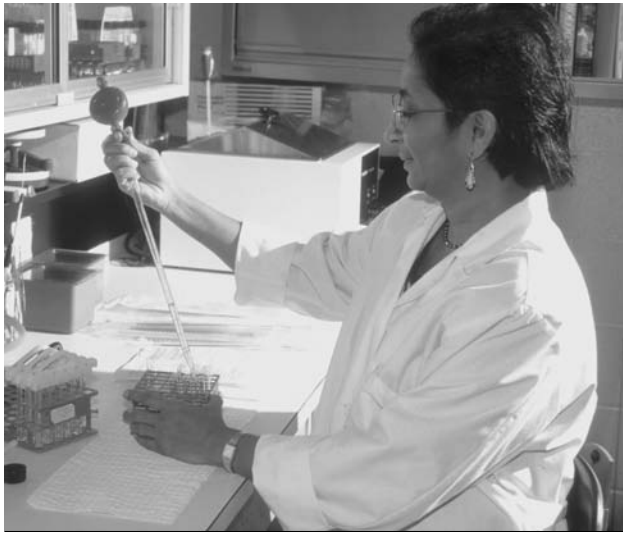
Due to its extensive coastline, hospitable climate, and importation of an increasing number of non-native species, Florida occupies a critical position in the nation’s agricultural picture.

monitoring and surveillance of animal diseases, the laboratories also provide thousands of tests each year for diseases of public health significance, such as Lyme disease, Rocky Mountain spotted fever, chlamydia (psittacosis), toxoplasmosis, giardiiasis, salmonellosis and anthrax.

The Diagnostic Laboratories at Kissimmee and Live Oak comprise a laboratory system certified by the American Association of Veterinary Laboratory Diagnosticians (AAVLD) as an all-species, full-service laboratory system. AAVLD certification is recognized worldwide.

national laboratory system. This initial program identified 12 laboratories across the United States to augment the National Veterinary Services Laboratory (USDA) in Ames, Iowa, and the Foreign Animal Disease Diagnostic Laboratory (USDA) at Plum Island, New York. This laboratory network is to provide increased Homeland and Domestic Security both in Florida and the nation.

The initial target diseases are Foot-and-Mouth Disease (FMD), Exotic Newcastle Disease (END), Highly Pathogenic Avian Influenza (AI), Classical Swine Fever



(CSF), African Swine Fever (ASF), Rinderpest, Contagious Bovine Pleuropneumonia (CBPP), Lumpy Skin Disease (LSD) and Vesicular Stomatitis (VS). Laboratory staff have received training on methods using new procedures in molecular diagnostics, including real time reverse transcription polymerase chain reaction (rt-RT-PCR). Currently the facility is certified by the USDA to run rt-RT-PCR for AI, END, CSF, FMD and VS. The laboratory has started surveillance for END as part of the National Animal Health Laboratory Network (NAHLN) effort to detect foreign animal disease before outbreaks may pose serious problems to agriculture. This is a concerted effort between the Bureau of Animal Disease Control field staff, the Florida Diagnostic Laboratories and the USDA. The Kissimmee Diagnostic Laboratory is also among the 12 laboratories in the nation that will provide surveillance for Bovine Spongiform Encephalopathy (BSE).

The mosquito-borne West Nile Virus (WNV) continued to be a problem this year. Tests such as antigen capture ELISA, traditional RT-PCR, rt-RT-PCR, and viral isolation are performed to diagnose the disease. The Kissimmee Diagnostic Laboratory in conjunction with the Florida Department of Health monitors WNV as well as the traditional mosquito-borne diseases (arboviral diseases). Evaluating the spread of arboviral diseases in animals affords public health officials a barometer of impact to humans. New tests have allowed the laboratory to confirm the diagnosis of these diseases.

The Virology Section led the laboratory in the number of cases received, with 11,421 submissions. In addition, the laboratory performed over 46,608 tests for Equine Infectious Anemia (EIA).

The Bacteriology Section continued the development of various culturing and diagnostic methods to better differentiate between various pathogens and environmental contaminants.

The Pathology and Histology sections provided critical diagnostic services to various animal commodity groups. Immunohistochemistry is an approved test by the USDA utilized to conduct surveillance for the deer population in the state of Florida for diseases such as chronic wasting disease. Other diseases that are diagnosed by this technique include Scrapie, Bovine Viral Diarrhea and West Nile Virus.

Live Oak Animal Disease Diagnostic Laboratory

During fiscal year 2003-2004, the Live Oak Animal Disease Diagnostic Laboratory underwent numerous changes intended to better serve Florida animal industries and position the laboratory to meet changing client needs and anticipated future demand. Live Oak Laboratory provides the majority of USDA Program Testing for Florida. For USDA Program Testing diseases brucellosis, Equine Infectious Anemia (Coggins), pseudorabies, and Johne's Disease, Live Oak Laboratory received over 226,000 samples requiring multiple testing procedures for disease analysis. Results of these tests are reported to the State Veterinarian and responsible USDA Veterinary Medical Officers for ongoing animal disease control or eradication efforts for cattle, horses and swine.

Live Oak Laboratory also performed over 30,000 non-USDA Program Testing diagnostic procedures on samples submitted by veterinary practitioners and the general public for clinical pathology, bacteriology, parasitology, serology and pathology. Poultry disease surveillance for the area broiler industry is a major component of sample submission, and testing is regularly conducted at Live Oak Laboratory to monitor birds for salmonella, Avian

Influenza and other disease entities critical to the poultry industry. Ongoing regular submissions of diseased backyard poultry yield surveillance samples that could provide early detection of Exotic Newcastle Disease (END), High Pathogenic Avian Influenza (AI) and other bird diseases that could be very detrimental to Florida's poultry industries. The Live Oak facility performed diagnostic services for Eastern Equine Encephalitis (EEE) and West Nile Virus (WNV) cases in horses and surveillance sampling for Transmissible Spongiform Encephalopathy (TSE) diseases: BSE (Mad Cow), Scrapie (sheep and goats) and Chronic Wasting Disease (CWD) in wild and captive deer.

The Live Oak Laboratory assisted in a number of interagency animal disease cooperative efforts. The Florida Fish and Wildlife Conservation Commission regularly submitted white-tailed deer for necropsy to determine cause of disease condition or death as well as for tissue sampling for Chronic Wasting Disease surveillance. The Suwannee County Department of Health submitted rabies-suspect animals so that samples could be collected and forwarded to human diagnostic laboratories for rabies analysis. The laboratory staff worked closely with Bureau of Animal Disease Control inspectors and veterinarians on numerous individual cases as well as several ongoing disease programs.

Laboratory facilities and instrumentation were improved in fiscal year 2003-2004, helping to ensure the early detection of animal disease threats. Security improvements included new fencing, access control and alarm systems. A new modular building was installed and furnished to accommodate increased Johne's Disease testing for the Voluntary Florida Johne's Disease Control Program. Additional testing instruments and laboratory equipment were procured for new testing procedures, and critical infrastructure renovations were completed. Live Oak staff attended specialized training to increase the laboratory's diagnostic potential.

Feed, Seed and Fertilizer

The Department is responsible for the collection and analysis of fertilizer and seed samples to determine

compliance with state standards and label guarantees, and to conduct a certification program for feed laboratories. It performs establishment inspections, collects samples for analysis, and issues enforcement actions. It also performs analyses on regulatory samples submitted by inspectors throughout the state.

The Department maintains a leadership role in determining compliance of regulated businesses with existing laws and demonstrates adaptability to an ever-changing agricultural and consumer environment. The Department is staffed with highly trained, professional personnel and utilizes the most advanced technology available. This combination ensures quality analytical results while maximizing efficiency and productivity. The objectives of the Department's feed, seed and fertilizer programs have remained constant through the years: to ensure consumers receive quality products, to provide a level playing field for all manufacturers, and to promote stewardship of Florida's environment. Additional information may be obtained by visiting www.flaes.org.

Feed

Animal feeds are regulated through the laboratory analysis of samples by Department-certified laboratories. Currently, eight laboratories are certified with the Department; none is located in Florida. Registrants, including ingredient suppliers, are required to submit samples of their products for testing based upon the feed type and tonnage distributed in the state. Results from these sample analyses are reported to the State Feed Laboratory, where compliance with Chapter 580, F.S., is determined. Appropriate regulatory action is taken by the Department. Eight certified laboratories and 663 feed companies are participating in the program. A total of 2,079 samples were submitted and analyzed, with 81 violations in one or more categories. This represents an overall violation rate of 3.9 percent. Limited inspection, sampling and laboratory evaluation oversight was conducted to verify compliance with the feed program. Six consumer complaints or requests were investigated, and 107 administrative fines totaling \$107,036 were levied for product quality control violations.

Bovine Spongiform Encephalopathy (BSE), widely referred to as “mad cow disease,” continues to be the most critical feed-related issue. BSE is a progressive and fatal neurological disorder of cattle. The disease was first identified in 1986 in the United Kingdom, but it was never detected in a native animal in North America until May 2003 when it was diagnosed in a single dairy cow in Canada. Subsequently, in December 2003, BSE was diagnosed in a single dairy cow in Washington State that had been imported from Canada. Variant Creutzfeld-Jakob disease, a chronic and fatal neurodegenerative disease that affects humans, has been linked to the consumption of beef products contaminated with the BSE agent. The U.S. Department of Health and Human Services and the U.S. Department of Agriculture have implemented measures to protect the public from health risks associated with BSE and to prevent the spread of the disease in U.S. cattle. The agencies are currently considering additional safeguards based on the recommendations of an international review team convened by the U.S. Secretary of Agriculture. In response, the Department increased its surveillance

inspections were assigned under the 2004 contract agreement. These inspections to emphasize feed safety will continue throughout the next fiscal year. In fiscal year 2003-2004, the Feed Laboratory established a section to analyze feed products for the presence of prohibited animal protein products using Polymerase Chain Reaction (PCR). Of the 90 feed samples analyzed for prohibited protein products this year, two ruminant feed samples were found in violation of Title 21 Code of Federal Regulations (CFR) part 589.2000. The Department receives a \$50,000 annual legislative appropriation that funds the development of laboratory testing methods to detect prohibited mammalian proteins in ruminant feed.

Seed

The seed program is administered to ensure that Florida consumers have a source of high-quality seed for planting that meets or exceeds state and federal standards. Samples of agricultural, vegetable and flower seed are collected and analyzed for purity, germination, and compliance with Chapter 578, F.S. Commercial seed samples are tested on a fee basis to determine seed quality or accurate labeling information. During the

Bovine Spongiform Encephalopathy (BSE), widely referred to as “mad cow disease,” continues to be the most critical feed-related issue confronting the cattle industry.

of feed product shipments from Canada and later focused its review on pet food.

To ensure that this disease does not enter Florida, the Bureau of Compliance Monitoring extended its contract with the U.S. Food and Drug Administration (FDA) to conduct inspections of feed manufacturers, distributors and ruminant feeders. The focus of these inspections was the prevention of the establishment and amplification of BSE by ensuring that no mammalian protein is used in feed for ruminant animals such as cows and sheep. A total of 200 BSE

2003-2004 fiscal year, 1,972 seed dealer licenses were issued and 3,592 official seed samples were collected. Laboratory personnel analyzed 3,656 official and commercial seed samples, requiring 63,569 determinations. Based on these analyses, it was determined that 15.5 percent of the official samples were mislabeled and 8.5 percent were illegal.

The Seed Investigation and Conciliation Council serves to assist farmers and agricultural seed dealers in determining the validity of complaints made by farmers against seed dealers and to recommend cost damages

if seed fails to produce. This council received seven complaints during the fiscal year, six of which are currently pending.

The Division of Agricultural Environmental Services continues to play a vital role in controlling the spread of the invasive noxious weed tropical soda apple. During the fiscal year, the seed laboratory identified 30 seed lots contaminated with this prohibited noxious weed seed. The result was the stop sale of over 200,000 pounds of agricultural seed destined for planting in Florida and the Southeast. The Department continues to inform stakeholders about the severity of this formidable invasive noxious weed and educate them about how to control it.

Fertilizer

The fertilizer program is one of the most innovative programs in the country. Official samples of commercial fertilizer and agricultural liming materials are collected and analyzed to ensure they meet the standards established in Chapter 576, F.S. This program serves as a model for new fertilizer analytical methodologies. The laboratory has implemented new methodologies to meet the evolving needs of the Florida consumer in the areas of nutrient availability in controlled-release fertilizers and micro-nutrient solubility. Twenty-five percent of samples that are analyzed contain slow-release fertilizers.

Issues such as heavy metals in fertilizers and nutrient Best Management Practices (BMPs) at fertilizer plants are also administered under this program. The Fertilizer Material Assessment Advisory Group scientifically evaluates all new fertilizer materials before they are permitted into the Florida marketplace and used in the state’s delicate environment. No new materials were reviewed by this group during the fiscal year. The laboratory also analyzes commercial samples, on a fee basis, to determine compliance with label guarantees.

There were 7,287 fertilizer samples analyzed during the fiscal year, of which 1,042 were found to be deficient in one or more plant nutrients. The laboratory performed 174,892 determinations on these samples. The overall



deficiency rate was 14.3 percent. As a result of excessive deficiencies, nine licensees were placed on probation, and penalties and fines totaling \$219,601.36 were levied, with \$185,560.04 of that total returned to consumers. There were 494 licenses issued for the sale of fertilizer in Florida. Additionally, 1,540 brands and grades of specialty fertilizers were approved for distribution. Nearly 2 million tons of mixed fertilizer and fertilizer materials were reported sold in the state.

The fertilizer laboratory performed 13,392 analyses for non-guaranteed trace metals in 900 fertilizer products. Four samples exceeded the established tolerances for arsenic and lead. A total of 1,655 environmental water samples were analyzed for nutrient content for other divisions in the department. There were 13,006 determinations performed on these samples.

Agricultural Water Policy

The Office of Agricultural Water Policy (OAWP) was established in 1995 by the Florida Legislature to facilitate and improve communications between federal, state and local agencies and the agricultural industry on water quantity and water quality issues affecting agriculture. Significant legislation passed in 1994, 1999, 2000 and 2002 provided for programs (Nitrate, Total Maximum Daily Load, Lake Okeechobee Protection and Water Conservation) which gave the OAWP statutory authority

to develop and adopt by rule Best Management Practices (BMPs). However, the OAWP's responsibility extends far beyond BMP development.

Best Management Practices

Best Management Practices (BMPs) are defined as a practice or combination of practices determined by the coordinating agencies, based on research, field-testing, and expert review, to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality in agricultural and urban discharges. These practices when implemented are deemed to have a minimum individual or cumulative adverse impact to the water resources of the state. The process of developing BMPs is driven by the agricultural industry and other stakeholders with assistance from OAWP technical writing staff. Those producers who choose to implement these voluntary programs will receive a presumption of compliance with state water quality standards and be qualified to receive cost-share assistance.

State and Federal Cost-Share Programs

In order to assist agricultural producers in the implementation of BMPs, the OAWP has developed working partnerships with various state and federal agencies. Through these partnerships, cost-share reimbursement monies are available for agricultural producers to implement BMPs that otherwise would be too costly. Currently, the OAWP has active agreements with USDA/Natural Resources Conservation Service (NRCS), St. Johns River Water Management District, Suwannee River Water Management District, Southwest Florida Water Management District, South Florida Water Management District, several of the state's Soil and Water Conservation Districts, and most of the state's Resource Conservation and Development Councils.

Field Staff and Technical Services

OAWP field staff are generally co-located with water management district offices throughout the state and help growers with the implementation of BMPs by providing technical assistance with state and federal programs, conservation planning, and cost-share

application information. Field staff also play a vital role in ensuring that BMPs are implemented as designed and perform critical follow-up inspections at producers' farm fields.

Soil and Water Conservation Council

More recent legislative changes expanded the existing Soil and Water Conservation Council (SWCC) to a soil and water issues advisory body to the Commissioner of Agriculture. In addition to key agricultural producers, the council now includes representatives from the five water management districts, the Florida Department of Environmental Protection, UF/Institute of Food and Agricultural Sciences, USDA/NRCS, the Florida Legislature, and the environmental community. The council's primary purpose is to make water policy recommendations to the Commissioner of Agriculture and to assist the Department with oversight of its key water resources programs.

Mobile Irrigation Laboratories

Recognizing the invaluable service the network of Mobile Irrigation Laboratories (MILs) provides to the state's agricultural industry, the OAWP has continued to support various programs associated with the MILs and has contributed funding in support of these services. The MIL programs are designed to provide assistance to the USDA/NRCS field staff as well as OAWP field personnel with site-specific irrigation testing, diagnostics, irrigation scheduling, and recommendations for system upgrades consistent with conservation planning and BMP implementation.

Florida's Agricultural Water Policy

At the request of Florida Agriculture Commissioner Charles H. Bronson, the OAWP took the lead role in the development of Florida's Agricultural Water Policy Document released in July 2003. The development of this document utilized the knowledge and experience of nearly 100 leaders in the agricultural, environmental, urban and regulatory fields. The document, which resides on the OAWP's web site, www.floridaagwaterpolicy.com, outlines the key issues associated with the supply, use, conservation and allocation of the state's limited water resources.

Ombudsman Assistance

At the request of management, OAWP staff provide third-party arbitration for growers unduly affected by onerous or cumbersome regulations. Often, staff produce a written report with scientific details and their professional technical opinion in order to help the implementing agency adjudicate a fair outcome.

Agricultural Law Enforcement Interdiction Stations

The Office of Agricultural Law Enforcement's interdiction stations are Florida's first line of defense in the protection of its agriculture. The Department operates 22 agricultural interdiction stations located on all paved highways crossing the natural boundary of the Suwannee and St. Mary's rivers. In addition, a 23rd interdiction station is under construction on Interstate 10 at the Florida/Alabama line. Agricultural vehicle inspections are conducted at each location around the clock, 365 days a year, by 199 law enforcement personnel and five support staff personnel.



These officers support and supplement all of the Department's regulatory and law enforcement programs by conducting inspections of highway shipments of agricultural, horticultural, aquacultural and livestock commodities. These regulations and programs ensure compliance with Federal-State Marketing Agreements as well as laws, rules and regulations enacted to make certain the public receives quality food products. Programs are also designed to prevent, control and

eradicate specific plant and animal pests and diseases that could economically devastate segments of Florida's agricultural industry.

Border security is one of the cornerstones of Florida's domestic security initiative, and increased vigilance by the Department's law enforcement officers has strengthened Florida's surface border protection. The implementation of the initiative has resulted in the following security measures:

- ◆ Performing interdictions/inspections of all commercial traffic and rental trucks entering and exiting the state.
- ◆ Tracking vehicles transporting dangerous cargo entering all interdiction stations.
- ◆ Utilizing real-time imaging of documents to track movement of agricultural commodities and livestock entering and exiting the state of Florida.
- ◆ Utilizing mobile gamma ray technology to enhance detection of plant and animal materials and safeguard Florida against agri-terrorism and contraband smuggling.
- ◆ Using canine teams specially trained to detect illegal plant and animal material that might harbor infectious diseases that could be harmful to Florida's farming community as well as to public health.
- ◆ Conducting area threat assessments and safety surveys that are compiled into a centralized database and offered as an informational resource to local, state and federal agencies.
- ◆ Maintaining a 24-hour toll-free hotline to report suspicious inbound or outbound commercial vehicles, as well as other agri-terrorism concerns.
- ◆ Increasing staffing at all interdiction stations, which resulted in the identification of over 285 illegal aliens who attempted entry through concealed means as well as the recovery of \$8.2 million of stolen property and dangerous contraband.

During fiscal year 2003-2004, the Florida Legislature approved funding for two additional gamma ray vehicles

to be deployed by the Department. Gamma ray vehicles quickly scan the cargo areas of trucks, producing live images that can help officers identify suspicious loads.

The Department, in cooperation with the USDA's National Detector Dog Training Center, deployed four additional detection canines at various interdiction stations during the fiscal year.

To facilitate movement of commercial highway traffic, the Office of Agricultural Law Enforcement continues a public/private partnership with the Florida Department of Transportation and private enterprise, to provide

commercial carriers with the PrePass™ electronic identifier. The PrePass™ allows some vehicles to bypass interdiction stations, reducing station traffic and allowing Department officers to concentrate their efforts on specific carriers of agricultural, horticultural, aquacultural and livestock commodities. Currently, electronic Pre-Pass™ is located at all interstate interdiction stations.

During fiscal year 2003-2004, Department officers conducted 11,616,322 vehicle inspections, detecting 7,055 violations. These violations resulted in 1,455 arrests, 3,355 warnings and 2,245 administrative actions. Additionally, officers expended 1,549 staff-hours dedicated to domestic security assignments.

During times of natural disasters, Department officers function as members of Florida's Mutual Aid Response Team, participating in relief efforts to ensure that devastated areas receive adequate law enforcement protection.



The Department also cooperates with federal, state and local governmental agencies on projects, both criminal and non-criminal, which either improve the efficiency of agricultural programs or generate additional revenues to the state without increasing costs to Florida's citizens.

Department officers collected and provided the Florida Department of Revenue with 111,785 bills of lading pertaining to certain types of cargo entering Florida. These efforts resulted in an additional \$12,803,191 in sales and use taxes being collected by the state during fiscal year 2003-2004 that would have otherwise gone uncollected.

This cooperative effort not only greatly enhances the state's ability to collect sales and use taxes but also precludes out-of-state contractors and businesses from gaining an unfair competitive advantage over Florida entrepreneurs. Since the inception of the program in April 1993, this cooperative effort has resulted in the detection and collection of over \$125 million in otherwise undetected sales and use tax.

Bureau of Investigative Services

The Bureau of Investigative Services is responsible for the initiation and investigation of matters over which the Department has jurisdiction and on property owned, managed or controlled by the Department. Its responsibilities include the enforcement of criminal and civil violations occurring within state forests or any crimes involving agriculture, horticulture or aquaculture.

As an active member in the joint response team comprised of the Florida Department of Health and the Florida Department of Environmental Protection, the bureau investigates crimes relating to bio-terrorism and domestic security and actively participates in all seven regional Domestic Security Task Forces statewide.

The bureau enforces laws governing consumer issues, including illegal telemarketing operations, sale of business opportunities, solicitations of contributions,

sellers of travel, motor vehicle repair fraud, health studios, dance studios, pawnshops, and moving and storage companies.

The majority of consumer-related crimes occur in major metropolitan areas such as Jacksonville, Orlando, Tampa, Fort Lauderdale and Miami, which are home to international airports, seaports and one international mail center. Millions of dollars are lost annually through illegal operations conducted through these points of entry. Through a cooperative partnership with all federal, state and local agencies in all 67 counties, the bureau provides investigative support in all matters over which the Department has jurisdiction.

The bureau continues to conduct threat assessments of regulated entities affiliated with fertilizer, pesticide, food, petroleum production and distribution points, as well as investigating theft, shrinkage and suspicious activities regarding these materials.

The Bureau of Investigative Services provides several services to support the daily operations of the agency. Support services include completing all background investigations for all perspective employees of the agency; intelligence gathering and dissemination of information; investigative support for major cases originating at any of the 22 interdiction stations operated by the Bureau of Uniform Services to include matters relating to farm and equipment theft; agricultural, horticultural and aquacultural crimes; cargo theft; trafficking of narcotics; money laundering; illegal aliens; and coordinating the 800 MHz radio program.

The bureau provides services to support various divisions of the Department. It provides 24-hour security services for the Florida State Fair, including video surveillance, armed security and personal protective services during the two-week event; personal protective services, commonly referred to as dignitary protection, for the Commissioner of Agriculture and select staff traveling throughout the state; and armed security services for special events or issues where information suggests hostile or aggressive behavior may occur.

The bureau also provides support services to other local, state and federal agencies upon request, or as needed. Support services in this area include staffing for special events such as the FTAA event in Miami; investigative and technical support relating to investigations; support for personal protective services details for dignitaries visiting the state; and issues relating to domestic security.

Reporting systems currently utilized by law enforcement agencies to report crime occurrences do not differentiate agricultural crimes as a separate reportable crime category. Crimes such as farm equipment theft, livestock theft, timber theft, citrus theft and other agricultural crimes are reported only as thefts, and there is no means to pull statistical data from the systems. The bureau, in cooperation with California authorities, is currently coordinating the implementation of a database designed to provide an agricultural-related intelligence program for all law enforcement agencies in the state. The program allows for data input by individual agencies and provides a means to track issues related to a specific crime, identify suspects and modes of operation, and develop trends that may be occurring related to all agricultural-oriented crimes. The program is expected to be fully functional and operational by January 2005.

During fiscal year 2003-2004, the bureau made a total of 34 felony arrests and 88 misdemeanor arrests, issued 201 notices to appear related to state lands violations, and issued 392 written warnings and field interrogation reports. The bureau's activities included:

- ◆ 923 investigations relating to incidents other than state lands.
- ◆ Review of 2,010 motor vehicle repair complaints.
- ◆ 45 consumer-related investigations.
- ◆ Nine investigations relating to motor vehicle repair fraud.
- ◆ 52 investigations relating to animal health and livestock issues.
- ◆ Six investigations relating to plant industry issues.

- ◆ Six criminal violations relating to citrus canker quarantine violations.
- ◆ Assistance in the execution of 30 search warrants.
- ◆ Eight investigations relating to pest control matters.
- ◆ Investigation of 391 fires referred by the Division of Forestry.
- ◆ Seven felony charges and 21 misdemeanor charges related to fire law violations.

The bureau provides law enforcement services on 31 state forests managed by the Department. Ten uniformed officers and five investigative positions devoted a total of 11,715 hours patrolling 991,392 acres of managed land throughout the state. A total of 570 investigations were made that related directly to state lands, which resulted in 35 misdemeanor arrests.

The bureau has one full-time investigator assigned to aquaculture enforcement, who is responsible for investigating aquaculture crimes statewide, performing land patrol and water patrol functions. This investigator works an area ranging from Alligator Point south to Cedar Key, the Fort Myers area, and the inter-coastal waters on the east coast.

During the fiscal year, 1,448 hours were devoted to patrol and investigations. A total of 21 investigations involving aquaculture-related incidents were initiated and seven warnings were issued specific to aquaculture violations.

During the fiscal year, statistical data on reporting forms was not all inclusive for aquaculture and the forms were modified to capture statistical data related to the function. From April to June 2004, 120 food safety inspections, 158 aquaculture compliance inspections and six lease inspections were completed.

Incidental to the aquaculture mission, the investigator initiated nine investigations related to other incidents and made four felony arrests and two misdemeanor arrests.

During the year, the bureau completed a case involving an organized scheme to defraud in which the defendant and company has entered into a plea agreement and

settlement agreement. Two-hundred-and-sixteen violations were identified, and the Department has assessed a fine of \$100,000.

Plant Protection, Inspection and Certification

The Division of Plant Industry is the plant protection arm of the Department and works to detect, intercept and control plants and pests that threaten Florida's native plant and agricultural resources. The division maintains these functions through five bureaus: Citrus Budwood Registration; Entomology, Nematology and Plant Pathology; Methods Development and Biological Control; Plant and Apiary Inspection; and Pest Eradication and Control.

Citrus Canker

The Department is actively fighting Asian strain bacterial citrus canker. This plant disease has been found in 16 Florida counties since 1995: Brevard, Broward, Collier, DeSoto, Hendry, Highlands, Hillsborough, Lee, Manatee, Martin, Miami-Dade, Monroe, Okeechobee, Orange, Palm Beach and Sarasota. During fiscal year 2003-2004, new infections were found in Broward, DeSoto, Hendry, Highlands, Lee, Monroe, Miami-Dade and Palm Beach counties.

The Department's Citrus Canker Eradication Program (CCEP) involves the survey and inspection of properties and commercial groves for the detection of citrus canker, and the control and removal of infected and exposed citrus trees. Once suspect trees are confirmed positive by on-site plant pathologists, the positive trees are removed in compliance with Chapter 581.184, F.S. This statute states all positive and exposed trees within 1,900 feet of an infected tree must be destroyed. This method captures all of the disease spread from infected trees 99 percent of the time and is based on a two-year epidemiological study in Miami-Dade and Broward counties.

Quarantine Areas

New quarantine areas have been established and others have been expanded, reduced or removed. As of June 30, 2004, there were 1,359.5 square miles under citrus canker quarantine throughout the state — about 1,268 square miles in Miami-Dade, Broward, Palm Beach and Monroe counties; and another 91.5 square miles total in seven

other counties: DeSoto, Hendry, Highlands, Manatee, Lee, Orange and Sarasota. During the 2003-2004 fiscal year, 145.5 square miles of quarantine area were removed.

Several counties have been able to either eliminate or significantly reduce their quarantine areas through the cooperation of grove owners and homeowners who have allowed the CCEP to operate as intended with the enforcement of mandatory decontamination procedures and intensive survey activity. To date, Manatee has reduced its quarantine area by 147.25 square miles; Hendry by 159.5 square miles; De Soto by 46 square miles; Highlands by 11 square miles; and Hillsborough, Martin and Collier declared complete eradication.

Legal Update

Legal impediments that held the CCEP program back for over two years were eased this year. In February 2004, the Florida Supreme Court upheld the 4th District Court of Appeals (DCA) ruling supporting the science that citrus trees within 1,900 feet of an infected tree must be removed to stop the spread of the disease. The 2004 Legislature passed legislation that created agricultural search warrants that can be issued by the Department and are good for a 60-day period. This has helped to expedite eradication efforts. It is estimated that over 200,000 additional citrus trees will be lost in South Florida due to program slowdowns caused by legal hurdles.

CCEP Program Statistics	
Total Trees Removed, fiscal year 2003-2004	
Commercial:	309,456
Residential:	39,286

Control and Survey Commercial

Citrus canker was detected in five commercial groves in Desoto, Hendry and Highlands counties. A total of 4,015 positive trees were detected, resulting in the destruction of 287,483 citrus trees, a total of 2,193 acres. The heaviest infestation occurred in the Venus area of Highlands County, with 3,583 positives and 938 net tree acres removed. Citrus canker was found on 498 acres of grapefruit, 639 acres of early variety oranges, 30 acres of tangerines, and 981 acres of Valencia sweet orange during the year.

During fiscal year 2003-2004, effort was made to reduce the amount of time taken to complete a citrus canker control action. A control action includes detection, laboratory analysis, delimiting surveys, 1,900-foot arc determinations, grower negotiations, contract and bid process for tree removal, and the actual destruction of trees. In fiscal year 2003-04, the control completion period was 65 days as compared to 80 days for actions completed the previous year. Commercial citrus acres surveyed decreased this year due to quarantine reductions. There were 1,033,653 acres surveyed this year, compared to 1,223,250 last year.

Residential

There were five positive residential citrus canker finds, all occurring in Lee County. Four of the positive finds were in close proximity to previous detections in Cape Coral. Nineteen infected trees were detected on Pine Island. The above destructions will result in the elimination of 4,825 residential citrus trees. Both detections are connected to introduction of infected citrus plant material from southeast Florida. There were 61,433 residential properties surveyed this year, a 52 percent reduction from the 126,709 properties surveyed the previous year. The reduction is due to a decrease in residential canker detections.

South Florida

There were 66 new sections found positive with citrus canker, a total of 3,386 residential properties and 5,779 trees. The latest finds in Monroe County are currently being surveyed and regulatory actions will commence. In Broward, Miami-Dade, Monroe and Palm Beach counties, the residential survey team visited 481,592 properties and inspected 390,252 properties this year. A total of 21,973 grove trees were destroyed, 169 acres. There were 5,069 commercial acres inspected for citrus canker this year in southeast Florida.

Regulatory

The regulatory department inspects groves, processing plants, packing houses, retail outlets, lawn/landscape services, and residential areas to ensure proper decontamination procedures are in place. The Department issues limited permits for the movement of fruit to processing and packing facilities, and issues all documents pertinent to the program. Compliance agreements must

be renewed annually. These documents outline the required regulations that companies and individuals must follow to operate in citrus-producing areas and in quarantine areas. Violations are issued to anyone who is not in compliance.

During the fiscal year, the regulatory department performed 107,023 inspections. During the course of these inspections, 5,778 compliance agreements, 937 violations, 11,454 limited permits and 25,709 miscellaneous permits and documents were issued. There were 5,894,029 boxes of fruit moved under limited permit. Violation of citrus canker regulations may result in a warning for a first offense and fines up to \$5,000 for multiple offenses. Fines levied in fiscal year 2003-2004 resulted in the collection of \$21,550.

Public Relations

In addition to standard public relations activities, such as distribution of press releases, placement of advertisements, and maintenance of the canker help lines and web site, numerous other outreach and education programs continue. Public availability sessions are being conducted in areas with new CCEP control programs (e.g., Lee, Palm Beach and Monroe counties). In counties with active control programs, door-to-door campaigns have also been conducted to encourage the signing of waivers to inspect and cut infected and exposed trees. To expedite the South Florida eradication effort since the Florida Supreme Court’s favorable ruling, 40 state public liaison officers have been added. The officers are contacting residents to explain the program and seeking homeowner permission to survey properties and, if necessary, remove infected or exposed trees.

Last fall, workshops were held for citrus industry workers. Over 800 participants attended the workshops held at seven locations in Florida’s citrus-producing regions. The workshops, sponsored through a cooperative effort between the Division of Plant Industry, the U.S. Department of Agriculture (USDA), and the University of Florida’s Institute of Food and Agricultural Sciences (UF/IFAS), reinforced decontamination practices to stop the spread of citrus canker. Workshop agenda items included basic canker biology, decontamination procedures, research update, and regulatory information.

The workshops emphasized that decontamination is mandatory, compliance agreements are changing and violations are penalized.

Citrus Budwood Registration

The Citrus Budwood Protection Program protects the Florida citrus industry from injurious graft-transmissible pathogens by enforcing regulations requiring all citrus propagating material to originate from pathogen-testing sources. The bureau maintains screen-protected budwood sources of popular citrus clones selected for superior performance in Florida.

Two new citrus varieties were released this fiscal year. The Marisol and Nules clementines were made available to the citrus industry after being declared free of citrus pathogens under the Germplasm Introduction Program conducted by the Division of Plant Industry in Gainesville. The Nules originated in Spain as a bud mutation of the Fina clementine. The Marisol also originated in Spain as a bud mutation of the Oroval clementine. The budwood was imported into Florida from California, where they have been planted as fresh fruit varieties. Both are early-season, easy-to-peel varieties.

The number of citrus nursery propagations fell for the second consecutive year, reaching the lowest level since the beginning of the mandatory budwood program. Nursery propagations in 2003-2004 dropped from 4.9 to 4 million. The number of active commercial citrus nurseries decreased from 62 to 53. Of the 53 nurseries, 14 grow only field bare-root trees and 29 grow only containerized trees in greenhouses. Hamlin and Valencia sweet oranges continue to be the most produced varieties, and Ray ruby red grapefruit is the third most propagated citrus variety. Swingle remains the leading rootstock for 16 years.

The Department distributed 233,007 budeyes from foundation trees this year. Budwood bureau personnel made 138 budwood cuttings to supply 65 different customers. Florida citrus nurserymen received 94 percent of the budwood cut, while 6 percent of the budeyes were sold to non-participants or used for research. Seven foreign countries received 1,628 budeyes, and six states received 1,720 budeyes from program foundation trees.

Over 7,600 pathogen tests were completed in bureau laboratory and greenhouses this fiscal year. There were 271 shoot-tip grafts set up, representing 37 selections. Five shoot-tip grafts were released to be either kept in bureau screenhouse or released to the owner.

A new screenhouse is under construction at the Dundee Foundation Grove. This will be the third screenhouse at Dundee. The purpose of the new screenhouse will be to house citrus introductions new to Florida. The screenhouse will be used for both out-of-state introductions as well as those selections bred in Florida. The screenhouse will help provide space to multiply budwood quickly for anticipated industry demand of new varieties.

Research funded by the Florida Citrus Production Research Advisory Council continues to improve testing techniques for stem-pitting isolates of Citrus Tristeza Virus. These methods determine the distribution and severity of stem pitting in Florida. A total of 77 commercial groves representing both grapefruit and sweet orange from 11 counties have been sampled. Preliminary results suggest that stem pitting is not widely distributed in commercial citrus in all counties sampled. Initial biological indexing results indicate that the severity of stem-pitting isolates ranges from mild to moderate in either sweet orange or Duncan grapefruit indicators or both, depending on the origin of the isolates.

Budwood program rule changes took effect this year that raised several fees. The annual registration fees for seed source, dooryard and validated trees increased from \$1 to \$2 per tree this year, while parent tree fees decreased from \$5 to \$2 a tree. The price of out-of-state budwood increased from \$.75 to \$2 per budeye, and a \$100 processing fee was added to cover export expenses. Other rule changes will take effect in future years to give participants lead time to comply.

Pest Detection
Sudden Oak Death

The Department faced a new plant disease this spring, *Phytophthora ramorum*, or sudden oak death (SOD). Though SOD is not harmful to humans or animals, it is a serious fungus-like disease for which there is no known cure. It

affects not only oaks, but many other plants, including azaleas, rhododendrons, camellias and maples. SOD has a wide range of host plants, and as of June 2004, there were 34 plant genera on the SOD host and associated plant host lists.

In March, following the detection of SOD disease in two large commercial nurseries in Southern California, the Department halted the importation of all plant stock from that state. The Department immediately initiated survey efforts to eliminate at-risk plant material. From this survey, inspectors found six Florida garden centers had received SOD-infected plant stock from California. All the infected plants were camellias. Stop-sale and hold orders were issued to 60 nurseries. This is the first known incidence of this disease in Florida. Infected plant material was destroyed, and the remainder of the at-risk plant material placed under quarantine until it was in compliance with regulatory requirements. As of June 30, 2004, there have been no further detections of SOD in the Florida environment.

Due to the large volume of samples coming into the division's plant pathology diagnostic laboratory for identification for SOD, new procedures had to be implemented and schedules adjusted. Plant pathology processed 1,092 samples from March to the end of the fiscal year.

To help with the survey effort, the division, in cooperation with the USDA, UF/IFAS, and Southern Plant Diagnostic Network (SPDN), implemented a public education program. This program assisted in public education and outreach programs to identify plants purchased at infected garden centers or introduced into Florida by other means. County Cooperative Extension Offices were asked to provide initial evaluations of plant material and then forward any suspicious samples to the Department for identification.

The Department has been a leader in the national discourse on SOD and was a key participant in a meeting held in April at USDA headquarters in Maryland. Federal and state regulatory officials met to discuss the far-reaching implications of the potential spread of SOD. The results of

this meeting included agreement that *Phytophthora ramorum* is a serious national threat and the development of a standardized national quarantine that provides adequate protection to Florida and other states is of utmost importance. Consensus was reached among meeting participants that a strategy of containment and eradication of satellite infestations is the goal of the program. Amendments to the current federal regulations on SOD were developed and presented to the USDA at the meeting.

Florida participated in the *Phytophthora ramorum* 2004 National Nursery Survey. Thirty-one locations were inspected and 1,005 samples were collected. All samples tested negative for *Phytophthora ramorum*.

Because SOD presents a real and ongoing threat to the agricultural industry, environment and economy of Florida, the Department continued to prohibit the importation of all plants listed on the current SOD host and associated host list through the end of this fiscal year.

Pink Hibiscus Mealybug

The pink hibiscus mealybug (PHM), *Maconellicoccus hirsutus*, attacks more than 200 kinds of plants. This pest is a piercing and sucking insect. It sucks the sap from the plant and injects toxic saliva as it feeds. This process leads to the malformation of leaves and fruit, as well as stunted leaves and terminal growth (bunchy top). This feeding can also lead directly to the death of the plant. PHM can be spread naturally by wind, birds and other wildlife, or by people moving infested plant material to non-infested areas. During fiscal year 2003-2004, Department personnel witnessed the destruction of 8,756 plants as a result of PHM. In July 2002, the division, in cooperation with USDA, initiated a PHM biological control program in Broward and Miami-Dade counties, which is ongoing. (See Methods Development and Biological Control section.)

Pea Leaf Miner

Liriomyza huidobrensis, pea leaf miner, is a highly polyphagous and serious pest of various vegetable and flower crops, including lettuce, onion, pepper, potato, chrysanthemum, carnation, and many others. The original distribution of this pest is thought to be in cool, highland

areas of northwestern South America. Related species of concern are found in Central America, Mexico, California, Europe and Israel. During fiscal year 2004-2004, a total of 1,847 boxes were inspected for pea leaf miner.



Apiary Pest Treatment / American Foulbrood

Resistance to the treatment of American foulbrood seems to be becoming more pervasive throughout the state. Every colony within the state is experiencing some degree of resistance by the varroa mite to Apistan and Coumaphos. Beekeepers are learning practices of honey processing that lower the incidence of small hive beetle infestations in the comb before and after the extraction process. Honey prices fell from a high of approximately \$1.50 per pound to less than half that amount by summer of 2004. Production of premium citrus honeys was the best since 1979 and the tupelo honey crop, also prized for its quality, was at 50 percent of normal production due to environmental factors. There is a continued demand for honeybees for pollination. Competition for honeybees in early spring throughout the United States is affecting availability and prices paid.

In fiscal year 2003-2004, of the 218,089 honeybee colonies maintained by registered beekeepers, there were 51,019 colonies inspected from 3,468 apiaries. Compensation of \$5,830 was paid to beekeepers for 575 honeybee colonies destroyed because of infestations of American foulbrood disease. There were 113,826 colonies that moved from Florida into 18 different migratory states.

African Honeybee

Established colonies of bees of African origin were detected for the first time in Florida, in the Tampa area. All indications show African bees are cross-breeding with European bees, resulting in a bee that is more European than African. Two African/European hybrid finds were identified. Both were destroyed, but continued hybridization of the feral honey bee population causes concern.

Concerns were recently raised over the potential for the accidental introduction of the Cape honeybee, *Apis mellifera capensis*. The Cape bee, another bee of African origin, is parasitic in nature to other honey bee species. It has decimated the commercial honey bee industry in South Africa after an accidental introduction. The honey industry in tropical South Florida could face a similar fate if just a single female Cape bee is transported to that part of the state by ocean vessel, aircraft or other means. The Division of Plant Industry will be researching morphometrics and DNA markers peculiar to the Cape bee for early warning survey results on samples collected at ports and other locations throughout Florida for continuing surveys.

Plant and Apiary Inspection

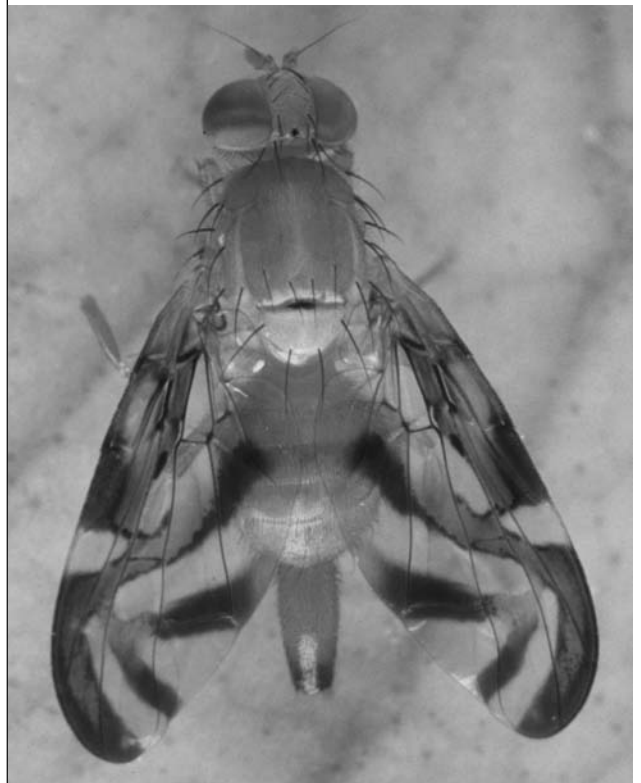
At the end of fiscal year 2003-2004, there were 7,879 nurseries (9,565 block locations) and 4,004 stock dealers (9,665 outlet locations) registered with the Department. Inspectors made 55,626 inspections of nursery and stock dealer establishments. As a result of these inspections, 2,091,778 plants were quarantined. There were 17,512 state and federal certificates issued for shipments of plants and plant products exported from Florida.

Department personnel also inspected 7,879 shipments of plants and plant products imported into Florida from other states and countries, including 2,345 shipments of nursery stock, and 454,750 boxes of citrus and other fruit. These inspections resulted in 493 (213 for nursery stock) regulatory actions for plant pests of quarantine significance. As a result of inspection, over 20,076 soil and root samples were collected and analyzed specifically for burrowing nematodes as required by the Burrowing Nematode Certification Program.

Department personnel tended 222 gypsy moth traps in North Florida. Other seasonal traps included seven cotton boll weevil traps. Department and USDA personnel tended more than 56,646 traps for exotic fruit fly detection.

Caribbean Fruit Fly Protocol

The Caribbean fruit fly is a serious pest of many tropical and subtropical fruits of Central and South Florida. The Fly-Free Zone Certification Protocol was developed to certify citrus fruit as free of Caribbean fruit fly larvae. Bermuda, Brazil, Colombia, Ecuador, Japan, Korea, New Zealand, Philippines, Thailand, the People's Republic of China, Vietnam, and the states of California, Hawaii and Texas have accepted this certification procedure, which is



fully funded by grower assessments. Fruit shipped to these areas must originate in specific Caribbean fruit fly-controlled or designated areas in citrus-producing counties approved for shipment of fruit.

In the 2003-2004 season, 162,540 acres were certified in 22 eligible counties. The Caribfly Protocol establishes a safe and effective procedure for exporting citrus to areas

requiring quarantine safeguards. Japan is currently the largest importer of fresh Florida grapefruit; 12,142,059 cartons of citrus fruit were shipped to Japan under the protocol certification program this season.

Boll Weevil Eradication

At the close of the 2003 cotton-growing season, there were 442 commercial cotton producers in the state. These producers planted 92,241 acres of cotton in 13 counties, a decrease over the 2002 growing season of 26,636 acres of planted cotton. Throughout the 2003 cotton-growing season, there were no boll weevils trapped in the state.

**Methods Development
and Biological Control Programs
Caribbean Fruit Fly**

The Biological Control Rearing Facility (BCRF) continued production of the Caribbean fruit fly (*Anastrepha suspensa*, Loew), rearing approximately 158 million this fiscal year or an average of 3.04 million per week. Genetic rejuvenation (wild Caribfly incorporation/lab-reared replacement) was accomplished during the fiscal year. The flies were collected from the field in 2002 from both guava and loquat fruit. Total replacement of the old lab-reared colony was accomplished by January 2004; however, a small colony of the old lab-reared flies will be maintained separately for one year. Although this transition lowered our average larval and pupal production per tray of diet from fiscal year 2002-2003, it will make our lab-reared flies more competitive when used in SIT programs and for research purposes, including new control strategies. Various life stages were supplied to researchers at the University of Florida and the USDA as well as for the bureau’s alternative pesticide testing, encompassing both soil drench and bait station technology.

Diaprepes Root Weevil

Mass rearing of *Diaprepes abbreviatus* continued at the BCRF, funded in part by a Florida Citrus Production Research Advisory Council box tax grant. Multiple diet cups were infested with approximately 274,000 neonates. About 74,000 grubs were transferred to single cups, from which 47,000 pupated and 43,000 emerged as adults. This minimal 9 percent increase in neonate infestation correlated with a 19 percent increase in grub transfers



and a 53 percent increase in pupae and adult production. The use of irradiated larval diet material, the Büchner funnel/vacuum pump infestation method for neonates, and more experienced technicians contributed to the increased production by aiding in reducing microbial contamination. Shipments included 266,000 eggs, 25,000 neonates, 4,100 grubs and 39,000 adults to 12 different researchers developing a wide range of control strategies against this imported agricultural pest. This is an increase of 13 percent, 20 percent and 46 percent for neonates, grubs and adults, respectively, over the previous fiscal year. Another trial was run to see if the larval development time interval could be shortened by transferring 120-day-old larvae out of their larval diet and into either vermiculite or perlite media. Unfortunately, there were no significant differences between the regular diet and either alternative, so the additional transfer step that would be involved is not merited. However, another way to label diet cups is being investigated to save time and labor while minimizing data errors.

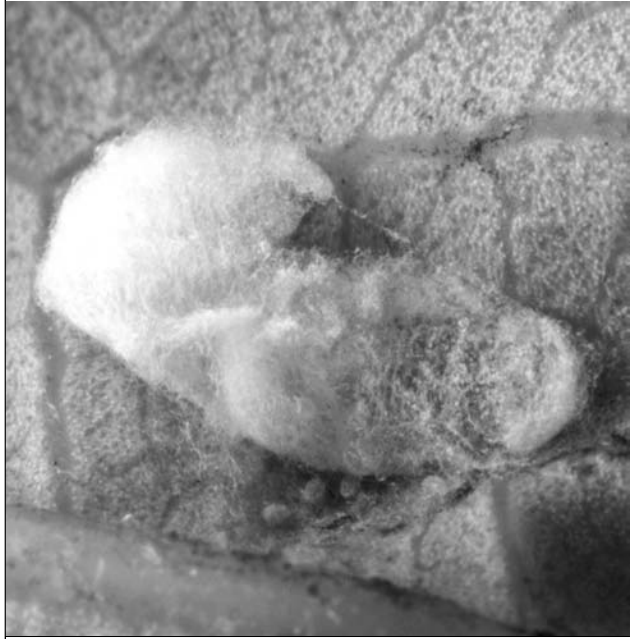
The Department has cooperated with U.S. Sugar Corporation, UF/IFAS, USDA, and the Kerr Center in the introduction, rearing and release of *Quadrastichus haitiensis*, an egg parasite of *Diaprepes abbreviatus*. This parasite was imported into Florida in November 1998 from Puerto Rico. During the past four years, the Department reared and shipped about 4.65 million (1.25 million in fiscal year 2003-2004) *Q. haitiensis* to 21 cooperators for release

in infested locations in Broward, Dade, DeSoto, Hendry, Highlands, Indian River, Lake and St. Lucie counties. *Q. haitiensis* has been established at several locations in Broward, Dade, DeSoto, Hendry and St. Lucie counties.

Phorid Flies (*Pseudacteon* sp.)

Mass rearing of the phorid fly, *Pseudacteon tricuspis*, has continued at the Biological Control Rearing Facility as part of a joint venture with the USDA to release this parasitoid as a biological control agent against the imported fire ant (IFA), *Solenopsis invicta*. This endeavor encompasses personnel and resources from the Division of Plant Industry, USDA-ARS and USDA-APHIS, and several other agencies in many of the southern states. Funding for the project is supported by a cooperative agreement with the USDA-APHIS. Currently nine attack boxes are online producing an average of 500 flies per box per day of the phorid fly species *Pseudacteon tricuspis*. Approximately 1.7 million flies of this species were produced this fiscal year with most being used to increase production and improve rearing techniques. The adult phorid fly has a maximum life span of only a couple of days, so large numbers must be reared for colony maintenance. Five additional attack boxes were used to rear a second phorid fly species, *Pseudacteon curvatus*. Over 380,000 flies of this species were produced and are to be first released into the field in July 2004. Two additional attack boxes are currently used to investigate rearing improvements and will be brought online for production when enough ants, phorid flies and personnel are available for this labor-intensive rearing process.

The USDA-APHIS Gulfport Laboratory is continuing to coordinate the field release efforts with various federal and state cooperators. This year, the Department's facility supplied over 137,000 phorid flies (*Pseudacteon tricuspis*) for release in 12 IFA-infested states. During the fall 2004 release season the Department hopes to distribute both *Pseudacteon tricuspis* and *Pseudacteon curvatus* to a majority of these states again, some of which will be receiving their fourth or fifth allotment of the first species. It is hoped that these and additional phorid fly species can become successfully established throughout the southeastern United States within the next three to five years. These phorid flies will work together to suppress the IFA because



each fly species attacks a different size ant worker and attacks at different times of the day. The overall goal is to establish a complex of natural enemies of the IFA — similar to that which exists in South America — throughout the infested regions of this country. This will reduce pesticide usage and give native ant species an opportunity to reestablish themselves in numerous environmental niches.

Pink Hibiscus Mealybug

The pink hibiscus mealybug, *Maconnellicoccus hirsutis*, was initially detected in Florida on June 21, 2002. Between June 2002 and June 2004, it has been found on 726 sites in 10 counties (Brevard, Broward, Collier, Dade, Hillsborough, Indian River, Martin, Palm Beach, Pinellas and St. Lucie).

Delimiting surveys were conducted in new areas followed by the release of the parasites *Anagyrus kamali* and *Gyranusoidea indica*, which have been received from a rearing facility in Puerto Rico on a weekly basis. From initial releases through this fiscal year, 382,000 *A. kamali* and 501,301 *Gyranusoidea indica* have been released in 1,117 different sites. Weekly releases will continue as new sites are detected. Periodic surveys for mealybug spread, parasitism rates, and the impact of hyperparasites and predators such as *Cryptolaemus montrouzieri* will also continue.

Forty-four nurseries or stock dealers have had nursery stock infested and subsequently quarantined. The infested plant material was destroyed or it was chemically treated and then reinspected after 30 days before release from quarantine.

Asian Cycad Scale

Asian cycad scale, *Aulacaspis yasumatsui*, was first identified in Florida in 1996 in Miami-Dade County. The infestation had apparently been present for one to two years. This pest of cycads has since spread to at least 25 Florida counties, and heavy infestations have been reported from Alachua County to Miami-Dade County. During February 2002, the Division of Plant Industry collected the parasitoid *Coccobius fulvus* from infested cycads in the Naples area and released about 11,000 of these parasitoids in about 15 infested counties extending from the Orlando area to the south. Unfortunately, surveys during the past two years have indicated that *Coccobius fulvus* has not provided sufficient control of Asian cycad scale populations. A search for other parasitoids in China is currently under way.

Asian Citrus Psyllid

Division of Plant Industry personnel discovered Asian citrus psyllid, *Diaphorina citri*, at Boynton Beach on June 2, 1998. It had spread to 28 counties by 2001. It is one of the most efficient vectors of greening disease of citrus. If greening disease is ever found in Florida, this vector could spread it throughout the state. In cooperation with UF/IFAS, two parasites of *Diaphorina citri*, *Diaphorencyrtus aligarhensis* and *Tamarixia radiata*, were introduced in the division's quarantine laboratory October 21, 1998. A permit for field release of *Tamarixia radiata* was granted on July 12, 1999, and for *Diaphorencyrtus aligarhensis* on March 10, 2000. In fiscal year 2003-2004, approximately 13,200 *Tamarixia radiata* and 540 *Diaphorencyrtus aligarhensis* were reared and released from the division's laboratory. Personnel continue to monitor the effectiveness of these parasites.

Brown Citrus Aphid

Brown citrus aphid, *Toxoptera citricida*, was detected in Broward and Miami-Dade counties in November 1995 and has since spread throughout the citrus-growing region of

Florida. It causes economic losses by feeding on young citrus foliage and depleting sap. This aphid is one of the most serious pests of citrus due to its transmission of citrus tristeza virus (CTV). *Lipolexis scutellaris* adults from Guam were imported into the Department's quarantine laboratory on August 19, 1999, and a permit for release of this parasite was granted on June 21, 2000. Approximately 15,000 were released in infested counties in fiscal year 1999-2000; 25,000 in fiscal year 2000-2001; 30,580 in fiscal year 2001-2002; 26,065 in fiscal year 2002-2003; and 16,220 in fiscal year 2003-2004.

Citrus Leafminer

The Department has continued to rear and release the citrus leafminer parasite, *Ageniaspis citricola*, especially in the areas that are infested with citrus canker in Miami and Immokalee. This parasite has been established in citrus-growing areas in Florida. Citrus leafminer populations were high in 2002, especially on young groves. To compliment *Ageniaspis citricola*, the parasites *Semiolacher petiolatus* and *Citrostichus phyllocnistoides* were introduced into the division's quarantine laboratory in July and August 2003. A permit to release these parasites from quarantine will be requested in the near future.

Lobate Lac Scale

Lobate lac scale, *Paratachardina lobata*, was first found in Broward County in 1999. This species, from India and Sri Lanka, has rapidly become a serious pest of several ornamental and native plants in South Florida. Cooperative efforts with the UF/IFAS and USDA-ARS in Fort Lauderdale are under way to secure and introduce parasites from its native land. Two shipments of *Kerria lacca*, a commercial lac scale collected from Thailand, were sent to the quarantine laboratory in October 2003 and March 2004. Six parasites and two predators were emerged from the shipment in March, and over 1,000 parasitoids representing three species emerged from the March 2004 shipment. Among those parasites, *Coccophagus tschirchii* and *Tachardiaephagus tachardiae* were listed in the literature as primary parasites of *Kerria lacca* and lobate lac scale. Additional efforts are currently in progress to introduce these and other parasites into the quarantine laboratory.

Alternative Pesticide Research and other Technique Development

The Department continues its research to develop a process for reducing the application rate while maintaining the effectiveness of bait spray needed for controlling Caribbean fruit flies. GF-120 NF Naturallyte™ Fruit fly Bait is now considered the standard for fruit fly bait spray applications in Florida emergency programs and in controlling Caribbean fruit flies which threaten the Caribfly Protocol Program. A diluted bait spray would reduce the amount of product used per acre, thus helping growers lower their costs. After obtaining preliminary results from lab bench-top testing, Department scientists conducted field cage testing by exposing Caribflies to the standard rate as well as several diluted rates in two separate locations in the state. Further testing will continue to monitor effectiveness.

The Department continues to work to find an effective material to replace diazinon as a fruit fly soil drench treatment. Construction of both the laboratory and field units have been completed for continued testing of several candidate materials. Satisfactory testing of the bench-top lab units are ongoing, and future testing will be conducted with field soil drench units. Several chemical classes with different modes of action have been investigated.

Use of neoprene material to replace the standard cloth/rubber cement panel for Caribbean fruit fly egging in the rearing colony is being investigated. This will cut down on employees' labor and panel replacement frequency.

Bioassays are continually being conducted upon receipt of each raw ingredient used in the insect-rearing facility to ensure that the specifications are met as deemed by the contract. This includes yeast hydrolysate, defatted wheat germ, corncob grit and torula yeast.

Medfly Eclosion/ Release Facility for SIT/PRP

The Preventative Release Program continued the aerial release of sterile Mediterranean fruit flies to deter the establishment of introduced wild flies. This facility also acts as a reserve site for a Sterile Release Program should

an infestation occur and as a startup facility for other species of sterile fruit flies if they are available. Sterile medflies were released over a 570-square-mile area, which included Miami-Dade, Hillsborough, Manatee and Sarasota counties, at a rate of 131,238 per square mile, or a total of 74,805,625 per week. Over 3.889 billion sterile medflies were released during this reporting period.

Other projects originating at the facility included further testing of ginger root oil to improve mating and longevity in sterile released males, testing of various strengths of propylene glycol used in Multilure traps, field testing of a new *Anastrepha* bait, and the testing of dry traps versus wet traps using a cone lure. A pilot test has been ongoing to reduce flight time and associated costs by releasing larger numbers of flies over fewer flight lanes. Division personnel also assisted with a GF-120 NF Naturallyte™ Fruit Fly Bait rate reduction test in field cages at the facility.

Spray Equipment Testing

Several calibration and field trials were conducted with a USDA prototype ground foliar sprayer developed for fruit fly programs. The "Mockingbird" was designed to use both GF-120 NF Naturallyte™ Fruit Fly Bait as well as the currently used malathion/Nu-Lure bait spray mixture. In spite of using different pump capacities, consistent results were not achieved. Work is continuing on this equipment as well as the development of a DPI prototype in conjunction with Bureau of Pest Eradication and Control personnel.

Tree Termite Eradication

In May 2004, the eradication of a termite — the tree termite, *Nasutitermes costalis* — was announced for the first time in Florida. The tree termite is a non-native species discovered in Broward County in May 2001. In April 2003, pesticides were applied over a 50-acre area in Dania Beach west of the Fort Lauderdale International Airport. Two infested trailers and two boats were also fumigated. Follow-up treatments were applied in December 2003.

Apiary Research

During the fiscal year, division personnel assisted with several tests relating to apiary pests. These tests included: determination of the dose response for a new

strain of *Metarhizium anisopllae* (a fungus) compared to a Bioblast strain for the control of varroa mite, *Varroa destructor* (a pest of honeybees); and the field testing of four application techniques using sucrose in powder form for varroa mite suppression.

Caribbean Fruit Fly Research and Activities

The division maintains continuous fruit fly trap lines in portions of St. Lucie, Indian River and Martin counties. These traps are serviced weekly and results are tabulated for future reference concerning the variation seasonal Caribbean fruit fly populations. This data supports the



Caribbean Fruit Fly Protocol trapping information on fly populations in urban areas and is useful when conducting tests that involve the use of biological control agents or other suppression/control investigations.

The transfer of a Biological Scientist position from Winter Haven to Fort Pierce has placed increased emphasis on Caribfly-related issues. A Caribfly host phenology study, lure/attractant/trap comparisons, bait station development, and assistance with a GF-120 NF Naturalyte™ Fruit Fly Bait material rate reduction were initiated this fiscal year. In addition, this position has assisted with pink hibiscus mealybug surveys, parasite releases, greening disease surveys, and office renovation.

Florida Accelerator Services and Technology (FAST)

Commercial irradiation services continue with semiconductors and biological assay plates as the primary commercial products using the linear accelerator. During fiscal year 2003-2004, research products included plants, plant cuttings, fruit samples, pig's ears (dog treats), ground beef patties, rice and oysters. Irradiations for Division of Plant Industry research and production included using the Cesium-137 irradiator to process products such as Caribfly larvae and pupae, Diaprepes adults, and citrus budwood, plants and seeds.

Training and Compliance/Fumigation/Miscellaneous Activities

During the fiscal year, Division of Plant Industry personnel continued to: provide training and testing for employees for Restricted Use Pesticide (RUP) licenses; coordinate employee applications and maintain records of continuing education units (CEUs) for those licenses; provide Material Safety Data Sheet (MSDS) files; coordinate disposal of hazardous chemicals produced from division activities; and provide security/monitoring of the Gainesville facilities.

Fumigation of specimens, books and reprints for the Florida State Collection of Arthropods continued at the Gainesville fumigation chamber, as well as the coordination of fumigations at a University of Florida fumigation facility on campus. Annual evaluations and certifications of methyl bromide fumigation chambers used for blueberry fumigation were conducted during this period.

The Division of Plant Industry also provides technical assistance in the rearing and maintenance of a mole cricket colony located at the UF-IFAS headquarters in Gainesville. This colony is a source of healthy specimens necessary to carry on different control research projects conducted throughout Florida.

Entomology, Nematology and Plant Pathology
Entomology

The Entomology Section completed 10,315 separate identifications this fiscal year involving 338,842 specimens. During that same period, nine exotic species

were found established within the state, all representing new continental U.S. records. There were also 12 new state records.

The third year of a four-year, \$375,000 National Science Foundation grant for enhancement of the Museum of the Florida State Collection of Arthropods, was completed successfully with the purchase and installation of 24 steel cabinets and 648 new drawers.

A total of 32,311 arthropod identification records were entered into the entomology database. This brings the number of searchable Division of Plant Industry arthropod identification records to 100,213, with complete records for 1990 through 2004 and partial records as far back as 1985.

Florida State Collection of Arthropods

Donations for the fiscal year totaled more than 230,698 specimens, valued at \$526,487. This brings the total number of specimens to more than 8 million. Twenty-two guided tours and presentations were given this year, with more than 300 student and adult participants.

Nematology

In fiscal year 2003-2004, the Nematology Section analyzed 20,076 samples. These samples contained more than 147,000 specimens of plant parasitic nematodes, which were identified to genus and/or species by the division's nematologists. This diagnostic work involved 31,077 morphological and molecular identifications. Nematological analyses for certification and regulatory programs relative to citrus, ornamentals and other Florida crops represented 92.4 percent of the Nematology Section's diagnostic work.

In the previous fiscal year, the rice root-knot nematode, *Meloidogyne graminicola* Golden and Birchfield, 1965, was detected and reported for the first time in Florida on sandspur, *Cenchrus echinatus*. The identification was conducted by Dr. Z. Handoo on samples submitted from Miami-Dade County by Dr. W. Klassen. Since then, division nematologists have surveyed the site and collected soil and weeds, including sandspur, from the original detection area. Molecular and morphological analyses of root-knot nematodes extracted from weeds confirmed the

occurrence of *Meloidogyne graminicola* in Miami-Dade County as reported by Dr. Handoo. However, during this survey the nematode was only detected on nutsedge, *Cyperus rotundus*, without any evidence of nematode infection on sandspur. Nutsedge is known to be a good weed host of this root-knot nematode in the areas where it occurs. In bioassay tests, soil collected from the original detection area also indicated the association of *Meloidogyne graminicola* with *Meloidogyne javanica*. Other surveys of rice fields are planned since rice is the preferred host of this root-knot nematode.

In Florida, amaryllis, *Hippeastrum* sp., a flowering ornamental of important economic value, is infected by a lesion nematode which is considered to be *Pratylenchus scribneri* Steiner, 1943. Morphological analyses of *Pratylenchus scribneri* populations from amaryllis indicate that the head morphology of these populations differ from that of *Pratylenchus scribneri* from other hosts. These morphological differences were confirmed by DNA analysis of populations from amaryllis and those collected from other locales and hosts. These findings show that the lesion nematodes from amaryllis in Florida belong to an undescribed species. The description of this new lesion nematode is in progress.

Plant Pathology

For fiscal year 2003-2004, the Plant Pathology Section processed 11,761 samples in the main Gainesville laboratory (7,536 pathology samples and 4,225 citrus canker samples). In addition, seven new pathogens were identified in Florida for the first time.

Botany

For fiscal year 2003-2004, the Botany Section processed 5,455 samples. In addition, 53 specimens were added to the herbarium, bringing the total size of the collection to 7,892 specimens. Two seed samples were added to the seed collection, bringing the total number of seed vials to 1,466.

Advanced Diagnostics Laboratory

For fiscal year 2003-2004, the Advanced Diagnostics Laboratory (ADL) conducted diagnostic tests, molecular and/or biochemical, on a total of 442 regulatory samples

consisting of 1,141 individual analyses (citrus canker, Africanized honeybee, Gemini virus, medfly, sudden oak death, potyvirus, tospovirus and imported fire ant certification).

During this time period, a total of eight plant potyviruses of unknown or uncertain identity were submitted to the ADL by Plant Pathology for DNA sequencing. The ADL sequencing facility confirmed the identity of three viruses (tomato spotted wilt, impatiens necrotic spot and chrysanthemum stem necrosis), identified an additional three viruses (Colombian datura, peanut mottle virus strain M, and sugarcane mosaic virus strain E), and confirmed that unknown viruses from verbena and St. Augustine grass were, in fact, new to science. In addition, the development of microsatellite markers for the analysis of leather leaf fern anthracnose in Florida continued.

Citrus Germplasm Introduction Program

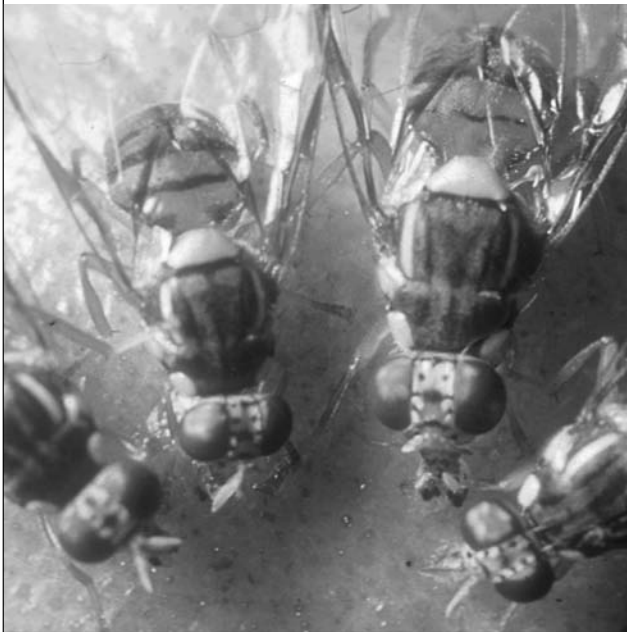
For fiscal year 2003-2004, the Citrus Germplasm Introduction Program conducted 198 pathogen indexing tests, including biological indicator inoculations and examinations, ELISA, sPAGE viroid, thermotherapy and shoot-tip grafting. Twenty-two selections were maintained in protected greenhouses, of which six were released as pathogen-free to the USDA-HRL in Fort Pierce, and the division’s Bureau of Citrus Budwood Registration in Winter Haven.

Fruit Fly Identification Laboratory

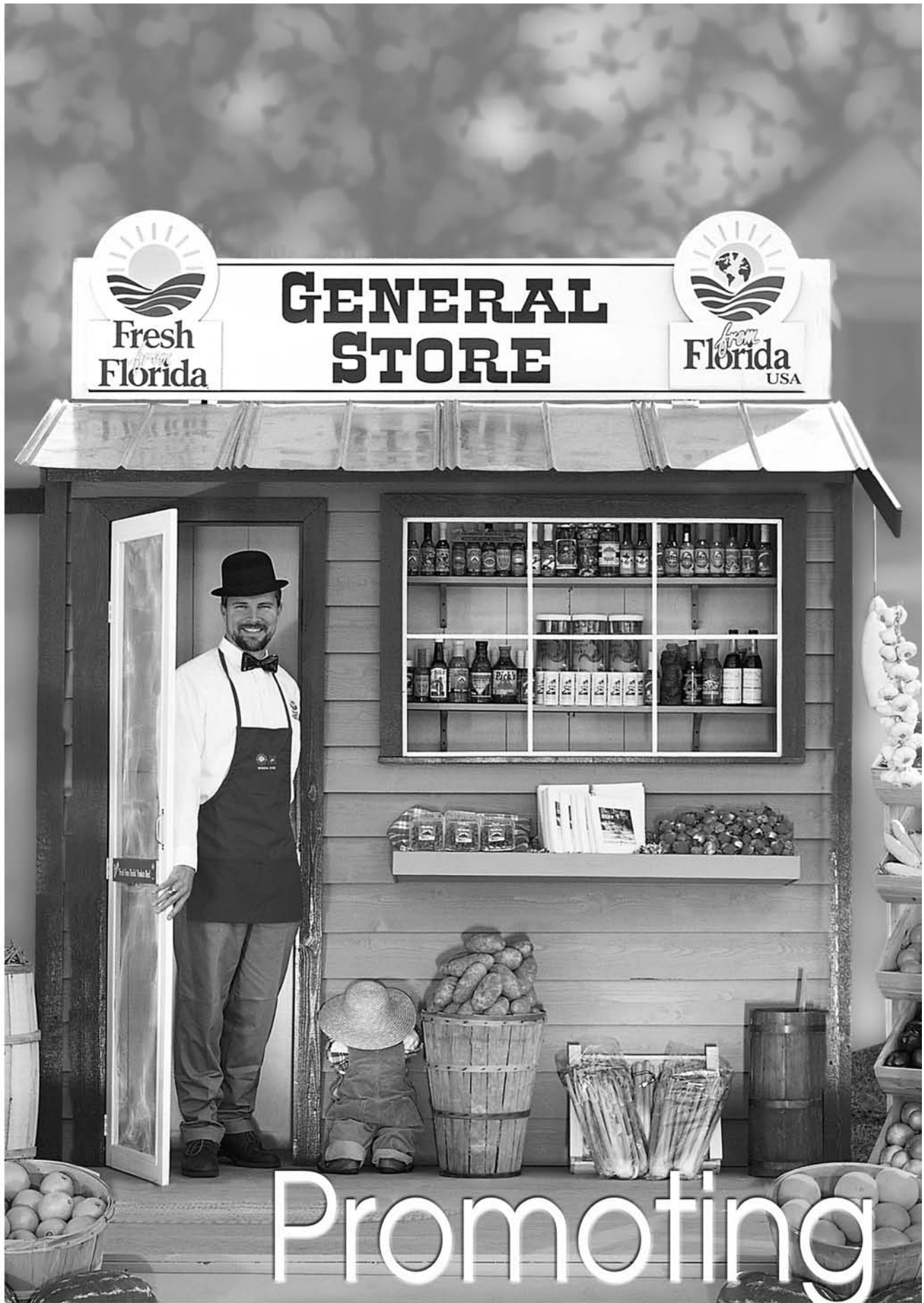
Division of Plant Industry inspectors and USDA fruit fly survey specialists serviced approximately 56,000 traps combined on a two- or three-week schedule for fiscal year 2003-2004. The Fruit Fly Identification Laboratory (sterile Medfly Preventative Release Program and Caribbean Fruit Fly Certification Program) processed 275,901 different fruit fly detection traps and screened approximately 2,597,442 sterile medflies and wild Caribflies. During this survey period, no exotic fruit flies were detected. Through successful and intense early detection and control efforts, no economically significant fruit flies became established.

**Pest Eradication and Control
Post-harvest Fumigation
at Wahneta Fumigation Station**

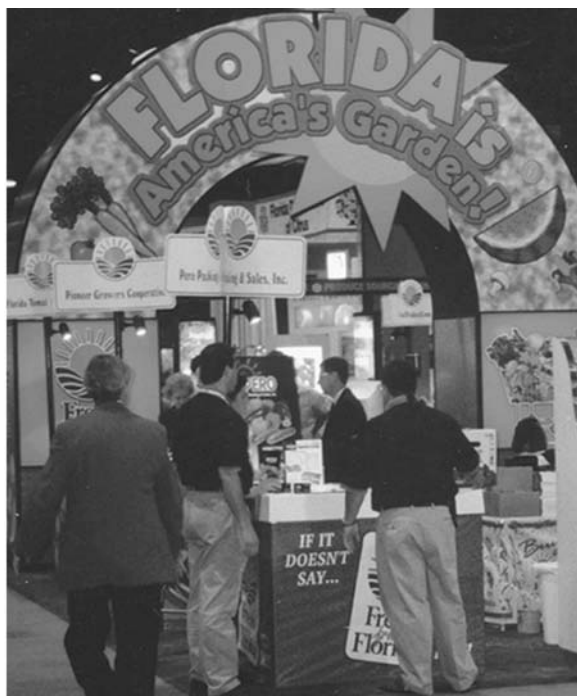
Fresh citrus fruit and other commodities produced in Florida must be certified for specified regulated pests to meet certification requirements of important marketing areas. Arizona requires fumigation of all citrus fruit received. California, Hawaii and Texas require certification of citrus for freedom of Caribbean fruit fly unless it has met all pre-harvest certification requirements in accordance with the established Caribbean Fruit Fly Protocol. Oregon requires fumigation for certification of fresh blueberries for freedom from blueberry maggot. Other commodities may require fumigation for certification for freedom of common pests such as the red imported fire ant.



At its Wahneta facility this fiscal year, the Department provided post-harvest, closed-chamber fumigation service and certified 261 truck loads (mostly citrus). Numbers of loads fumigated during this period increased by 38 percent. The increased fumigation service was accomplished efficiently after experiencing a 25 percent reduction in fumigation staff at the start of this period. Fumigation service was provided for a fee of \$300 per load.



Promoting **FLORIDA AGRICULTURE**



Fresh from Florida

In its 14th year, the Florida Agricultural Promotional Campaign (FAPC) continues to successfully promote Florida agricultural industries. The FAPC, commonly referred to as “Fresh from Florida,” is an identification and promotional program designed to boost the image of Florida agriculture by increasing the public’s awareness of Florida’s agricultural industries and their vital importance to the state’s economy. The FAPC enables domestic and international buyers and consumers to easily identify and purchase Florida-grown products at the wholesale and retail levels. The campaign features various distinctive “Fresh from Florida” logos which promote Florida-grown fruits and vegetables, seafood, horticulture, specialty products and dairy products. There are also logos for international buyers and consumers, including the “From Florida USA” logo and the “From Florida” logo for value-added products.

The FAPC continues to build upon existing industry relationships through its recently developed Corporate Relations Section. This section develops partnerships and promotional opportunities with some of Florida's top corporations.

PowerGrid, Greetings from Your Florida Farmer, Florida Watermelon Marketing Partnership

This trio of retail marketing campaigns continued the promotion of Florida agricultural products and involved a total of 10,129 participating supermarkets. Over \$312 million in Florida retail sales was realized from the campaigns during fiscal year 2003-2004, an 80 percent increase over 2002-2003.

Retailers participating in the PowerGrid campaign featured Florida-grown agricultural products in their



advertising circulars. A total of 7,331 supermarkets throughout North America took part in PowerGrid, making it the largest marketing campaign conducted by any state in the United States.

Greetings From Your Florida Farmer focused on Florida, Georgia and Alabama retailers. The 1,384 retail outlets that participated produced an estimated \$56 million in retail sales. The campaign continued to build on the firm foundation of support that Florida farmers enjoy. Many southern states have experienced a decline in agricultural sector production, but Florida has not followed the downward agricultural production trend.

The Florida Watermelon Marketing Partnership was a pilot program involving 1,414 select U.S. and Canadian retailers. During the pilot, more than 2,600 store ads were run featuring Florida watermelons. As a result of this program, retail sales increased by more than \$1.4 million.

Trade Missions and Reverse Trade Missions

The Department continues to attract international buyers with agricultural interests by conducting trade missions from Florida and hosting reverse trade missions into the state.

During fiscal year 2003-2004, trade missions focused on Ecuador, Honduras, Panama and Puerto Rico for beef cattle, and Costa Rica for goats. Another targeted region was Mexico, where cattle buyers have expressed interest in various breeds of Florida cattle. Florida representatives attended the National Mexican Cattlemen's Annual Meeting and Trade Show to continue building relationships.

Numerous reverse trade missions were organized to visit Florida. Guatemalan buyers purchased more than \$25,000 of farm equipment. Costa Rican goat buyers and beef and dairy cattle buyers from Puerto Rico purchased roughly \$190,000 in Florida livestock. Forty European agricultural commodity buyers from the Netherlands and Belgium visited Florida farms to ascertain the quality and availability of a large variety of Florida fruits and vegetables. They were pleased with the selection of goods and spent close to \$160,000 on this first mission. Plans to purchase additional Florida products are being discussed.

Thoroughbred Horse Sales to Korea

The Department sent an equine trade mission to Korea as part of a multi-year endeavor to continue opening Korean markets to Florida agriculture. The purpose of this trade mission was to conduct seminars in three Korean locations to promote the superiority and high value of Florida's equine industry. Key members of the Korean thoroughbred industry participated with this trade mission.

This visit resulted in a reverse trade mission of Korean buyers to Florida. This delegation was co-hosted by the Florida Thoroughbred Breeders and Owners Association. As a result of this visit, the Korean buyers purchased 69 thoroughbreds valued at over \$1.75 million.

Agri-Journal/Trade Leads

The Florida Agri-Journal is a monthly publication reaching more than 8,000 Florida Agricultural Promotional Campaign (FAPC) members, as well as agricultural associations, livestock producers, Senate and House Agricultural Committee members, and tenants of Florida State Farmers’ Markets. The publication provides producers with timely crop insurance information, risk management strategies, and marketing and financial information to help Florida specialty crop producers to make informed decisions regarding their operations.

International Trade Leads are published monthly in the Florida Agri-Journal, enabling international buyers and Florida suppliers and sellers to source industry information. These leads continue to assist Florida agricultural producers in maintaining a competitive edge in marketing and selling their products domestically and internationally.

Bureau of Education and Communication

The Bureau of Education and Communication is responsible for educating and informing consumers through news releases, brochures and other publications, exhibits and displays, graphics presentations, the Internet and other multimedia productions. Bureau productions are integral to many projects that are part of the Florida Agricultural Promotional Campaign (FAPC), a program that assists the state’s agricultural producers in expanding markets and promoting and selling Florida-grown products. In addition to its role within the Division of Marketing and Development, the bureau produces numerous projects for other divisions throughout the Department.

During fiscal year 2003-2004, the bureau issued more than 156 press releases to inform the public about various regulatory and promotional activities of the Department.

Additional publications regularly produced and distributed by the bureau include the Department’s Annual Report, and the Department’s employee newsletter, Open Lines.

The bureau also responds to inquiries from the public, and mails out publications upon request. More than 7,852 publications were mailed in response to over 1,458 individual requests received via mail, telephone, email and the Internet.

Florida Market Bulletin

The Florida Market Bulletin is a primary vehicle for keeping Florida’s farming community informed about issues affecting the state’s agriculture industry and the Department. This agricultural newspaper has been published regularly by the Department since 1917, and is currently available in printed form and on the Internet. In addition to disseminating agricultural news and information, the Florida Market Bulletin provides a forum by which Florida residents can advertise to buy or sell agriculture-related items through its classified advertising section. During the 2003-2004 fiscal year, 5,312 classified ads appeared in the Market Bulletin, which is published monthly and serves nearly 21,000 Florida farming households.

Graphics

The bureau is responsible for the design, illustration and production of printed brochures, booklets, posters, billboards, ads, and other marketing, promotional and educational materials pertaining to agricultural marketing programs and other activities of the Department. The bureau’s graphics section was involved in the production of more than 350 projects during the fiscal year. Major graphics productions included:

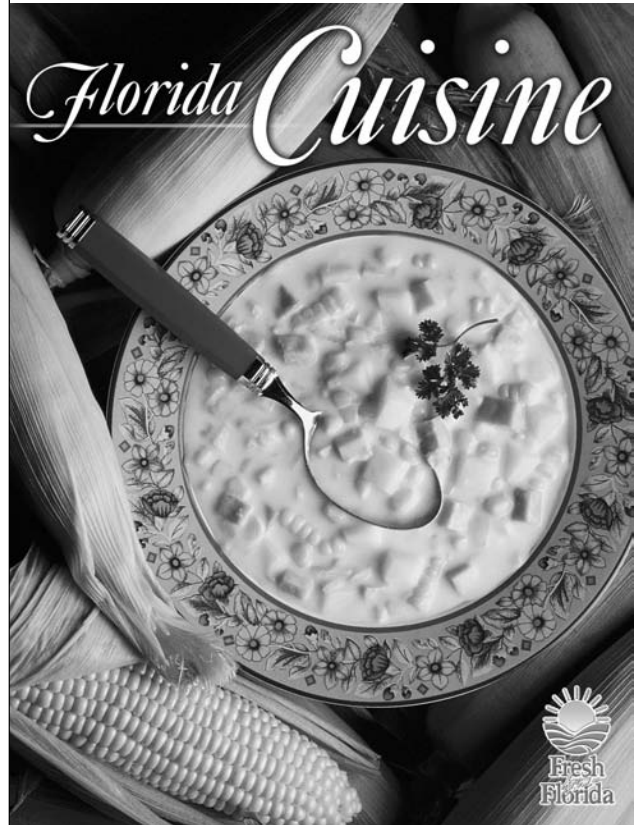
- ◆ Point-of-purchase materials for the spring produce marketing campaigns.
- ◆ Commissioner’s Agricultural-Environmental Leadership Awards program booklet.
- ◆ “Woman of the Year in Agriculture Award” program booklet.

- ◆ “Florida Agricultural Fast Facts Directory,” which provides comprehensive information and data on Florida agriculture, including statistics, comparative performances of major commodity groups and benchmark economic data.
- ◆ The Division of Marketing and Development prospectus, a multi-page folder providing an overview of services available to Florida’s agricultural community and members of the Florida Agricultural Promotional Campaign (FAPC).
- ◆ Department Annual Report.
- ◆ “Florida Cuisine” cookbook and commodity guide.
- ◆ Materials for the Florida Wild-Caught Shrimp Campaign.

Video and Radio

The bureau produces and disseminates audio and video productions such as television and radio public service announcements, radio programming, agricultural producer assistance videos, informational/promotional videos, documentaries and training videos. Major video projects produced during the fiscal year included:

- ◆ Television spots promoting the Florida State Fair in Tampa; produced in conjunction with the Florida State Fair Authority.
- ◆ Television spot promoting the consumption of Florida-harvested shrimp.
- ◆ Informational video explaining the Department’s legislative budget issues for the upcoming fiscal year.
- ◆ An informational/promotional video about the Future Farmers of America state officers.
- ◆ An informational/promotional video about a new organic pesticide developed by a Florida producer.
- ◆ A series of informational/news segments about Florida gardening for weekly broadcast on a Tallahassee television station.
- ◆ An informational video about the new Level 3 Bio-safety Lab located at the Kissimmee Diagnostics



Laboratory and its vital role in animal disease prevention and homeland security.

- ◆ An informational video about Florida’s “Woman of the Year in Agriculture,” outlining the contributions to the state’s agricultural community by the 2003 recipient, Jennie Lee Zipperer of Fort Myers.
- ◆ Three informational videos about the winners of the 2003 Commissioner’s Agricultural-Environmental Leadership Awards, detailing the progressive environmental efforts of: Aquatica Tropicals, Inc., of Plant City; Sun City Tree Farm of Ruskin; and Williamson Cattle Company of Okeechobee.
- ◆ A public service announcement about automobile repair fraud, which is one of Florida’s top consumer complaints, advising consumers of the protections afforded them under state law.
- ◆ A public service announcement about the protections afforded consumers under Florida’s price-gouging law.

- ◆ Radio programming during the fiscal year included promotional spots for the Florida State Fair, and a weekly agricultural news program in conjunction with Southeast AgNet.

Marketing/Advertising Awards

The Division of Marketing and Development's advertising and marketing efforts for calendar year 2003 were recognized by the professional advertising community through the presentation of five Addy Awards, which recognize excellence in creativity, originality and creative strategy in print and electronic media. The division received three local golds and two local silvers. Gold award winners were: the Buy Local television spots promoting regionally grown agricultural products offered by members of the North Florida Local Food Partnership; the Florida Pink Shrimp television spot; and the Fresh-2-U Kids' Nutrition Campaign.

Promoting Florida Agriculture on the World Wide Web

During fiscal year 2003-2004, the Division of Marketing and Development redesigned, upgraded and enhanced its web site www.florida-agriculture.com to better serve consumers and Florida's agricultural community. The improved web site loads faster, is easier to navigate, and offers many downloadable agriculture-related brochures, videos and audio files.

The site contains information and materials that help Florida farmers more effectively market their commodities. It also informs consumers about the wholesomeness, variety and availability of Florida agricultural products. The web site fosters the notion that the more consumers know about the many agricultural commodities grown in Florida, the more they will choose to buy products that are "Fresh from Florida."

Seafood and Aquaculture Marketing

The Bureau of Seafood and Aquaculture Marketing provides information to the Florida seafood and aquaculture industry to facilitate buying, selling and marketing Florida seafood and aquaculture products. The mission of the bureau is twofold: to market Florida products to consumers and to assist the seafood and aquaculture industry to increase sales.

Bureau services include producing educational materials for consumers, and providing promotional materials, supplier directories and training on handling and storage safety for retailers, food service professionals, wholesalers and processors. The bureau provides educational and technical support and training for fishermen, aquaculturists, retailers and food service professionals. The bureau serves as a liaison for aquaculturists, commercial fishermen, government agencies and the consuming public by utilizing the expertise of industry advisory councils. The bureau provides public relations to the media on behalf of the seafood, aquaculture and marine life industries. It also provides marketing services, including electronic marketing programs identifying U.S. and international buying and selling operations. The bureau assists and promotes Florida industry through the distribution of recipe brochures and educational materials to visitors at seafood festivals throughout the state and at industry trade events, domestically and abroad.

The Department is committed to serving seafood and aquaculture audiences with integrity and professionalism to increase the industry's sales and profits through global marketing and education. This year, seafood and aquaculture promotional materials, press releases and public service announcements were distributed. Activities of the Bureau of Aquaculture and Seafood Marketing generated 2 billion consumer impressions nationwide with a sales value of approximately \$10 million. Chief among the audiences served by the Department are:

- ◆ Consumers seeking information to wisely purchase, prepare, serve and store seafood and aquaculture products. The Department reaches consumers by means of printed materials, news releases and public service announcements through television, radio, print media and appearances at regional seafood festivals.
- ◆ Producers (fishermen, processors and aquaculturists) needing technical, educational, marketing and promotional assistance, as well as safety, handling and storage information turn to the Department. Florida fishermen and processors took advantage of several marketing and promotional opportunities to sell their products. The Department's marketing and

promotional programs use the “Fresh from Florida” logo and are backed by a multilevel campaign creating consumer awareness and interest and fueling demand for Florida products.

Publications

The Department produced several publications highlighting Florida seafood and aquaculture companies’ products, promotional and marketing programs, technical services and exporting opportunities. The Source directory continues to be a principal resource for more than 300 Florida seafood and aquaculture wholesalers, retailers and allied companies. The Source is distributed to more than 3,000 seafood, aquaculture, marine and pet store buyers. An online version is continually updated with wholesalers. During fiscal year 2003-2004, the bureau developed a promotional CD version of the Source to augment the online version, creating a direct access to the bureau’s home page www.fl-seafood.com. The bureau also established an advertising sales campaign for wholesalers in the Source.

Wild and Wonderful Florida Shrimp

The U.S. market is saturated with an enormous volume of low-priced imported shrimp. In the past three years alone, imports are up 17 percent, while prices are down by 29 percent. Domestic ocean-caught shrimp prices are at a six-year low. There is very limited public awareness of the difference between imported and domestic wild ocean-caught shrimp. The purchase of domestic ocean-caught shrimp is very important for the fisherman of Florida’s coastal waters, and the economy of the state. An aggressive public relations/multimedia marketing campaign was developed by the Department to increase consumer demand and increase sales of domestic wild ocean-caught Florida shrimp. Components of the campaign included retail advertising incentives, web site development, press relations, public relations, radio and television promotions, chef partnerships, retail point-of-purchase development, race car sponsorship, trade events and festivals, and corporate partnerships with Samuel Adams Beer and Gallo wines.

Consumer research surveys were conducted at major grocery stores in Chicago, New York City, Boston, Tampa, Orlando and Miami. This research revealed the majority of those

surveyed did not know whether the shrimp they purchased was imported or domestic. When told that both imported and domestic shrimp are available for purchase, 45 percent of those who preferred domestic shrimp were willing to pay from \$1 to \$3 more per pound for domestic shrimp.

While some individual campaign components began earlier in the year, the “Florida Wild and Wonderful Shrimp” campaign began in earnest with a kickoff press conference held May 18, 2004, by Commissioner Bronson. The event was well attended by Florida news media, and the “Ask for Florida Shrimp” race car, owned by Bobby Jones Racing, was on display.

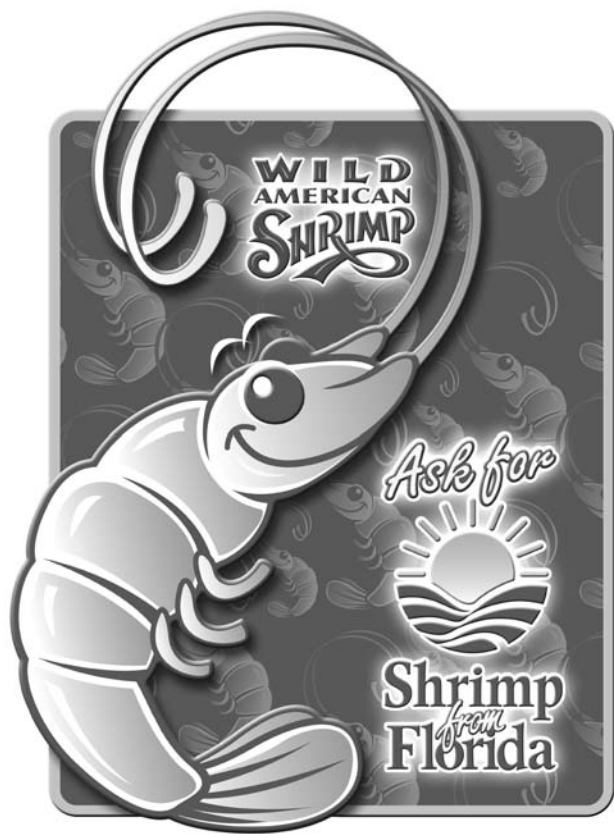
The multimedia campaign included television, radio, newspaper, magazine, web site and point-of-purchase materials.

The “Florida Wild and Wonderful Shrimp” campaign partnered with major retailers in the Mid-Atlantic and Southeastern U.S. to promote Florida wild ocean-caught shrimp. In addition to Florida chains Publix, Winn-Dixie and Kash ‘N’ Karry, the campaign drew national and regional partners Kroger, Harris Teeter, Giant Foods and Texas-based HEB Grocery/Central Market. A total of 2,302 stores located in 15 states participated by purchasing 640,265 pounds of Florida wild ocean-caught shrimp and displaying point-of-purchase materials. Over 41,000 pieces of point-of-purchase materials were distributed by the participating chains, generating 57,964,369 consumer impressions. Increases in sales reported by the stores ranged from 90 percent to over 1,900 percent.

Independent Florida seafood retailers and seafood restaurants participated in a cooperative advertising incentive program promoting Florida wild ocean-caught shrimp. A portion of advertising costs incurred by the businesses in local newspapers were underwritten during the campaign. Advertisements in local newspapers generated as a result of this program 13,891,150 consumer impressions.

DIVE IN! Aquarium Fish Campaign

The “DIVE IN! Aquarium Fish” campaign, a partnership with the Florida Tropical Fish Farms Association, American Pet Products Manufacturers Association and aquatic



industry companies, is a consumer and retailer marketing and promotional campaign developed to increase sales and consumer awareness of tropical fish and aquarium accessories. This multi-component campaign, which began in October 2000, touts the positive social, psychological, entertainment and economic attributes of aquarium ownership.

During fiscal year 2003-2004, the campaign included further development and distribution of point-of-purchase materials, consumer education tools and the DIVE IN! Pro Retail Training Program. To date, more than 3,300 pet retailers participate in the campaign through these components. Promotional activities included participation in six pet industry trade shows and distribution of press releases and interviews with pet industry trade publications. In addition, retail partnerships continued with Wal-Mart, PETSMART and PETCO, the three largest retail outlets selling aquarium fish.

Seafood and Aquaculture Grant Funding
With a grant from the National Oceanic and Atmospheric Administration (NOAA) and the National SeaGrant Program, the Department is collaborating with the

Louisiana Seafood Promotion and Marketing Board, the Mississippi Department of Marine Resources and key members of the Gulf of Mexico oyster industry on a two-year project. The goal is to increase the overall sales and consumption of oyster products through the development and promotion of post-harvest processes and technologies, and to provide a safe oyster that is acceptable to food service professionals and consumers. New oyster processing technologies by oyster processors must be adopted to produce these non-traditional oyster product forms.

The Florida Department of Agriculture and Consumer Services developed consumer education materials and communication strategies targeting food service professionals and the at-risk consumer segment of the population. Awareness of the risks involved in eating raw oysters and the information regarding the availability of equally good tasting product alternatives with safety-added features is the main focus of this education program.

Walgreen's Pharmacies Partnership

According to the U.S. Food and Drug Administration, approximately 20 million Americans eat raw oysters. While not a threat to most, eating raw oysters can cause serious illness or even death for a certain at-risk population. Those groups of at-risk oyster lovers are those with liver disease, diabetes, cancer, chronic ailments or any immuno-compromised condition. The risk is associated with *Vibrio vulnificus*, a bacteria that occurs naturally in warm coastal waters.

The Department has received a commitment from Walgreen's Pharmacies to assist with educating those who are at risk from consuming raw oysters. Walgreen's will educate their pharmacists on *Vibrio vulnificus* and the risks associated with eating raw shellfish. The company will also place informational literature in its pharmacies and train pharmacists to counsel the at-risk patient about the consumption of raw shellfish. Initially, the company will do this in over 600 stores in Florida, Puerto Rico and the Caribbean. Later, it will expand this project to the Southeast, with the ultimate goal of over 4,500 stores nationwide.



Ensuring

A SAFE, WHOLESOME FOOD SUPPLY



The Department's experienced staff of public health professionals and laboratory scientists monitor approximately 47,000 retail food stores, processing plants and similar businesses to ensure compliance with food wholesomeness and safety standards. The Department maintains a close working relationship with the U.S. Food and Drug Administration (FDA), the U.S. Department of Agriculture (USDA), the Florida Department of Health, the Florida Department of Business and Professional Regulation, and other agencies to share information, avoid duplication of effort and carry out food safety activities more effectively and efficiently.

The Department continues to emphasize proper sanitation and safe food-handling procedures in the establishments it inspects and regulates. It also provides consumer protection safeguards by checking the accuracy of product labels, net weight and grade standards and by sending samples to the laboratories to ensure the absence of food-borne pathogens or other contaminants.



The Department continues to assist the food industry through training for the implementation of Hazard Analysis Critical Control Point (HACCP) programs. HACCP concentrates on preventing, eliminating or reducing food safety hazards to an acceptable level; these hazards may occur during any stage of the food production or handling process. Thus far, HACCP training efforts have concentrated on high-risk foods, including sprouts, unpasteurized juices, and seafood.

One of the Department's major missions is to protect the public from unsafe foods by continuous laboratory testing for food-borne pathogens, illegal additives or contaminants, misrepresented products, and the presence of pesticides and other chemical residues for the enforcement of established tolerances. The Department is a leader in the development and implementation of sophisticated analytical techniques and methods to ensure the safety of foods throughout the production and distribution process. By administering the Interstate Milk Shippers Program and similar state regulations, the Department assures consumers that dairy products are wholesome and are produced, processed and merchandised under sanitary conditions. These programs also enable Florida dairy farmers to ship their products in interstate commerce.

The Department emphasizes the prevention of food-borne illness, and when any situation relating to food safety arises, the Department has the authority to immediately stop the use of improper equipment or to halt the sale of products deemed unsafe to the public. As the lead state agency for food safety, the Department has continued to make preparations in its laboratories and inspection force to respond to any terrorist attacks on our food supply. Inspectors have been trained as first responders, and the food safety laboratories have key roles in laboratory response, both at the state and national level.

Bureau of Food and Meat Inspection

The Department has broad consumer protection responsibilities in the area of foods. It inspects retail food stores, food processing plants and similar businesses in Florida to assure compliance with food wholesomeness and safety standards. There were 47,404 such businesses operating during the past year, including 3,149 water vending machines. During fiscal year 2003-2004, a total of 85,989 inspections were conducted to determine compliance with sanitation standards or HACCP requirements. Other frequent activities by food inspectors included visits to establishments for complaint investigation, administrative purposes, sample collection, and enforcement actions such as placement or removal of stop-sale or stop-use orders.

As a result of this inspection activity, the Department cited 3,525 individual food businesses for failure to meet sanitation and food safety standards; 351 of those firms received administrative complaints and were assessed \$409,300 in fines. In other actions resulting from surveillance inspections, 18,481 notices of violation, 30,940 stop-sale orders and 11,605 stop-use orders were issued. The stop-sale orders removed 2,780,634 pounds of unsafe or otherwise unfit food from the Florida marketplace.

In addition to sanitation and food safety concerns, inspections also entailed a variety of other consumer protection safeguards. Food labels were reviewed for accuracy and compliance with federal and Florida requirements. Packaged foods were test-weighed to assure net weight accuracy. Ground beef was tested to ensure the

amount of fat was correctly stated on the label, that poultry or pork products had not been added, and for the presence of fillers and sulfites. Shucked oysters were tested for mandatory expiration dating and added water. Eggs were examined to verify labeled grade and size. Other foods received similar quality and safety checks.

An important part of the food inspection program is response to consumer needs and concerns. During the fiscal year, numerous telephone calls, e-mail messages, faxes and letters were received from consumers asking a variety of questions about food handling practices, about food in general or specific foods in the marketplace, or expressing a concern about food establishment

areas to avoid duplication, share information and assist each other in carrying out food safety activities. The Department continued to provide egg and poultry grading and inspection service for 14 establishments under authority of a longstanding cooperative agreement with the USDA. A total of 760 million pounds of poultry and eggs were graded or inspected in order to qualify for labeling under USDA standards. During fiscal year 2003-2004, one new egg establishment opened while one poultry grading establishment closed, and the above reduction in output simply reflects a greater output (tonnage) when grading poultry than when grading eggs for the same manpower input.

The Department continues to emphasize the enforcement of Florida's statutory requirement that the country of origin of any fresh fruit or vegetable produced outside the United States be identified to food store customers. This identification can be accomplished through labeling of individual items or by signage at the display. During the fiscal year, 501 violations were identified and 190 administrative fines totaling \$65,400 were collected from establishments that had violations.

The Department also continued its surveillance of herbal dietary supplements containing harmful compounds. Ingestion of products containing ephedrine alkaloids (sometimes called ma huang) has been associated with several deaths, including at least one in Florida. On December 30, 2003, the FDA announced its intention to publish a final rule effectively banning the sale of dietary supplements containing ephedra. On January 7, 2004, following the announcement of the proposed ban by federal rule, Commissioner Bronson wrote a letter to Florida producers, distributors and merchants engaged in the manufacture, distribution and sale of ephedrine-containing dietary supplements. In the letter he announced the forthcoming ban and requested the industry voluntarily stop marketing these supplements immediately. Food safety inspectors visited 15,000 stores and requested voluntary removal of the product from the shelves. On February 11, 2004, the FDA published the final rule in the Federal Register declaring dietary supplements containing ephedrine alkaloids adulterated under the Federal Food,

conditions. A total of 2,275 consumer complaints were investigated, and each person filing a complaint was advised of the findings.

The Department continues to work in close cooperation with FDA and USDA on food safety activities. Under contractual arrangement with the FDA, the Department inspected 355 interstate food processors and collected 667 samples, of which 53 were analyzed in FDA laboratories and 614 in the Department's Food Laboratory. The Department and the FDA have also entered into partnerships in several program



Drug and Cosmetic Act because they present an unreasonable risk of illness or injury. The rule became effective April 21, 2004. On April 14, 2004, Commissioner Bronson announced the stop-sale of ephedra products. After the federal ban went into effect, Division of Food Safety inspectors issued stop-sale orders for ephedrine-bearing dietary supplements to 247 different firms. On July 26, 2004, a final rule was published in the Florida Administrative Code declaring dietary supplements containing ephedrine adulterated under provisions of Chapter 500.10, F.S.

The letters covered such issues as excess fat in ground beef; undeclared allergens; high bacterial plate counts in various ready-to-eat (RTE) foods such as sandwiches, salads, cheese, sprouts, sushi and produce; species adulteration; and general labeling deficiencies.

The Department initiated administrative actions against 598 food establishments that did not pay the required renewal fee for a Food Establishment Permit and collected \$225,300 in administrative fines and fees for late payment.

The Department is focusing on specific nutritional claims such as “low carbohydrate” and “low fat” to ensure that these products are accurately represented to the consuming public.

The popularity of diet plans based on low carbohydrate intake has increased significantly in this country. The Department has conducted surveillance of nutrient claims for many years but now is also focusing on specific nutritional claims such as “low carbohydrate,” “reduced carbohydrate,” “low fat,” “low sugar,” “no sugar,” “low salt,” “fat free,” and other nutritional claims to ensure that these products are accurately represented to the consuming public. Legislation introduced in 2002 set forth specific schedules for responses to nutrient claims violations and the Department has rigorously adhered to that schedule. Requirements related to such claims is determined by the FDA and adopted by the state. The result of the Department’s actions on this issue has had national impact as many food processors have changed their label or their formulation to comply with Florida’s requirements. In addition, products have been voluntarily removed from the Florida market for failure to comply with accurate nutritional labeling criteria. During fiscal year 2003-2004, the Department tested 344 samples for nutritional label claims, resulting in 45 violation/warning letters for nutritional labeling violations. Appropriate fines were assessed for non-compliance with the law.

The Department issued 225 notice-of-violation letters, 20 adverse findings letters and 100 defect action level letters.

These establishments were open for business, had been inspected and were in violation because they were operating without a permit. Permit renewal is required annually under Florida law.

Transportation Working Group

Meat, poultry, eggs, juice, dairy and other food commodities are susceptible to contamination from a wide variety of physical, microbial, chemical and radiological agents in transportation. The Florida Food Safety and Food Security Advisory Council created a workgroup to address the issue of transportation in the food industry with a particular focus on tanker trucks. The workgroup was specifically charged with analyzing the industry’s current cleaning regimens and security issues. The workgroup will report to the Advisory Council in the fall of 2004 with recommendations.

**Hazard Analysis
Critical Control Point (HACCP)**

The Department continues to be actively involved in the ongoing training and implementation of Hazard Analysis Critical Control Point (HACCP) programs in the food industry. HACCP is an internationally recognized, science-based, systematic, preventive, process control program to assure the production of

safe food. It complements existing sanitation and good manufacturing practices programs. The program concentrates on preventing, eliminating or reducing hazards, which may occur during any stage of the food production or handling process. Since December 1997, federal and state food rules have required seafood processors to develop and follow a HACCP plan. During the 2003-2004 fiscal year, 315 verification inspections of seafood HACCP programs were conducted. Other HACCP activities included 608 verification inspections of sushi producers' HACCP programs. The Department's HACCP unit continues to coordinate with industry and other agencies to provide training, assistance and information.

Several firms in Florida grow fresh sprouts for shipment to retail outlets such as grocery stores and supermarkets. The Department has required sprout growers to institute and use a HACCP plan to control the hazards in the growth of these potentially hazardous foods. During the 2003-2004 fiscal year, 17 HACCP inspections were conducted at the firms that grow and sell sprouts.

juices until such time as the federal regulation becomes fully implemented.

Through its Division of Food Safety and Division of Fruits and Vegetables, the Department conducted 103 HACCP inspections of fresh-squeezed juice manufacturing firms during fiscal year 2003-2004. The Department continues to provide training and other assistance to the state's small citrus juice processors.

Other Programs

The Department maintains an active role in managing food safety issues, including providing assistance in the investigation of food-borne illness; coordinating the collection of samples to monitor potentially unsafe foods; responding to consumer requests; providing educational materials; conducting informal hearings on administrative complaints; and interpreting rules to maintain an overall food safety program that addresses both local and national concerns.

The Bureau of Food and Meat Inspection continues an active intra-agency partnership with the Office of

The Department maintains an active role in managing food safety issues, including providing assistance in the investigation of food-borne illnesses and monitoring potentially unsafe foods.

HACCP personnel continue to be involved with industry, academia and regulatory agencies to provide training support and expertise as HACCP principles are applied in other food industries such as fresh citrus juice processing, sprout growers, shell eggs, and retail establishments. In 2001, FDA published regulations which require fresh juice processors to apply HACCP principles in the production of juice for beverage use. The effective dates of that regulation are staggered from 2001 to 2004 based on business size. The Florida Department of Citrus published Standards for Fresh Squeezed Citrus Juices, Chapter 20-49, Florida Administrative Code, as an interim measure requiring application of HACCP to production of fresh

Agricultural Law Enforcement's Agricultural Interdiction Stations. The 24-hour, seven-day-a-week communications systems between the two entities continue to provide increased surveillance of food products entering and leaving the state. Through coordinated activities, thousands of pounds of potentially unsafe food have been destroyed and prevented from entering Florida's food chain, or the vehicles have been sealed and sent back to their state of origin. Communications have been established with the regulatory authorities in other states regarding the return of these sealed delivery trucks. Coordination with comparative agencies in neighboring states has allowed their food safety professionals to meet the truck and supervise the

destruction of the products as well as take appropriate regulatory action against the firm. Cooperation between the Division of Food Safety and Agriculture Law Enforcement has resulted in enhancement of the safety of food through continuous monitoring and rapid response to problems associated with the transportation of foods throughout the farm-to-table food continuum at every road portal into the state.

In the 2003 Legislative Session, the Florida Food Safety and Food Security Advisory Council was created to serve as a forum for presenting, investigating and evaluating issues of current importance to the assurance of a safe and secure food supply to the citizens of Florida. The Department will host this council that will bring together diverse partners to address common food safety and security issues of concern in Florida.

The Department provides Certificates of Free Sale and food manufacturing practice documents for food products that are used for human consumption and exported to other countries. Businesses receiving such documents must be permitted by the Department and have a current and good satisfactory sanitation rating. In fiscal year 2003-2004, the Department processed and issued 6,585 Certificates of Free Sale. Eighty-five firms requested the service this fiscal year for shipment of U.S.-origin food products to some 30 different countries.

The Department oversees bottled water plants, bulk water vendors and self-vending water machines. The Department coordinates with other agencies to ensure all drinking water processed in Florida continues to meet the federal and state Safe Drinking Water Acts. Meetings conducted with representatives from Florida's Department of Environmental Protection, Department of Health, and the Water Management Districts revealed there were some areas that need greater oversight. The Department is working closely with sister agencies to



clarify water source requirements and assure that all areas of the process will be adequately protected. The proper and accurate labeling of bottled water, especially spring water, is being scrutinized so consumers will receive what is geologically defined as spring water when it is so labeled without having to be concerned with misrepresentation. The agencies are working in concert to detail specific information for dissemination to potential operators so they know from the outset what is involved — from obtaining a permit to drill a well to the finished, safe, properly labeled, consumable product.

Self-vending water machines, of which there are over 3,100 in the state, provide economical and safe drinking water to Florida's residents and visitors. The Department is improving its database to ensure each machine is uniquely identified by another means in addition to a permit number. This helps ensure that each vending machine is properly inspected and sampled.

In conjunction with the USDA, the Department periodically conducts inspections for food products illegally imported for sale. Products found include illegal invasive plants, plants and animals from prohibited disease- and/or pest-infested areas, and meats from foot-and-mouth disease, hog cholera, and Bovine Spongiform Encephalopathy (mad cow disease) areas.

**Bureau of Chemical
Residue Laboratories**

The Department’s Chemical Residue Laboratory analyzes samples collected throughout Florida for chemical contaminants. These samples are collected from farms, through processing and distribution channels. All foods grown or manufactured inside or outside of Florida, including foreign countries, are subject to unannounced collection and analytical testing to assure adherence to the standards of wholesomeness, safety, freedom from contamination, and proper representation in labeling.

One of the Department’s major missions is to protect the public from unsafe foods by monitoring pesticide and other chemical residues for the enforcement of established tolerances. The Department also provides pesticide residue data for federal agencies to use in making dietary risk assessments. During fiscal year 2003-2004, the Department conducted 376,664 separate determinations for chemical residues on 3,304 food samples.

Pesticide Residues

The primary focus of the program is the analysis of pesticide residues in fresh fruits and vegetables. A total of 3,304 fresh fruit and vegetable samples, including 1,560 samples for the USDA Pesticide Data Program, were analyzed. Forty-four percent of the samples were grown in Florida, while 21 percent of the samples collected were imported. Products from 25 countries were sampled. Of the imported samples, 84 percent were grown in Mexico and South American countries.

The Department’s monitoring program is one of the most comprehensive monitoring and enforcement programs in the nation and provides the residents of the state with

valuable information concerning the safety of the food supply. In addition to assuring the proper use of pesticides by Florida growers, a thorough testing program may enhance the status of Florida- grown produce in international markets.

The Department also participates in the USDA Pesticide Data Program, an internationally recognized program that focuses on providing comprehensive data on pesticides for the purpose of risk assessment. This program targets very low part-per-billion levels of pesticides, and commodities most frequently consumed by infants and children. More recently, commodities such as peas, green beans, and asparagus have been added.

Samples are selected for the regulatory surveillance program based on several factors. Analysis of statistics on Florida-grown fruits and vegetables, as well as consumption statistics, are used to develop sampling plans which will target products most likely to contain illegal residues. During the past year, the Department conducted surveys of strawberry growers early in the growing season in order to assess possible pesticide misuse. Detection of an illegal pesticide at one grower led to an investigation that resulted in an opportunity to provide needed education to a new grower. In both fall and spring, Florida oranges and grapefruit were sampled. Grapefruit are exported to Japan, and growers must meet strict pesticide regulations. Data provided by the Department can help provide assurance of the safety of Florida produce.

One-hundred forty-six pesticides are detected using current multi-residue methods, an increase of 12 percent over last year. Just over 2 percent of samples analyzed exceeded established tolerances and guidelines. Of the 36 fruit and vegetable violations identified in the 2003-2004 fiscal year, 26 samples (72 percent) were of imported produce.

Pesticide residue violations led to 34 separate investigations of food adulteration incidents during fiscal year 2003-2004. Commodities involved in adulteration incidents were malanga, carrots, mint, cantaloupe,



papaya, mangoes, cucumbers, summer squash, plantain, parsley, tomatoes, Chinese eggplant, eggplant, strawberries, peaches, onions, oranges, basil, bananas, ginger root, bell peppers, green beans and honeydew melon. Whenever possible, field personnel traced back product to its origin and took additional samples.

The Department also focused on enforcement of crisis exemptions which were granted to beekeepers for the use of coumaphos to control varroa mites in beehives. A method was developed for the analysis of 12 pesticides in honey, including coumaphos, and 15 samples collected at individual beekeepers were analyzed. The Department increased its monitoring of crisis exemptions this year through the addition of several new pesticides to the multi-residue screening method. These included the following pesticide/commodity combinations: thiophanate methyl in citrus and tomatoes; fenbuconazole in grapefruit, blueberries and tomatoes; and pyriproxyfen in legume vegetables. Additional special surveys to monitor crisis exemptions for other commodities/pesticide combinations will be continued.

The Chemical Residue Laboratory was invited to participate in an Association of Analytical Communities collaborative study for a new multi-residue method for

pesticides in food. The study involved federal, state and international laboratories. The study was completed in May and will be published in 2005.

Antibiotic Residues

Chloramphenicol had been detected previously in honey samples analyzed by the U.S. Food and Drug Administration and in samples analyzed overseas. Chloramphenicol gained international attention when it was first detected in seafood in early 2002. The Department analyzed over 300 samples of seafood during the past two years. The honey analytical procedure was developed by the Chemical Residue Laboratory and was presented at an international conference. The Department intends to expand the analysis of foods for antibiotic residues in the coming year.

Bureau of Food Laboratories

The Bureau of Food Laboratories uses chemical, microbiological, molecular and physical methods to analyze foods processed or sold in Florida. These analyses help to ensure a safe and wholesome food supply by verifying the absence of adulterants, especially microbial food pathogens and food allergens, by verifying conformance with standards of safety and quality, and by ensuring accurate representation in labeling and nutritional claims. Emphasis is placed on current and emerging food safety issues, such as microbiological contamination, unapproved food components, filth, chemical and heavy-metal contaminants, new food and food packaging technology, dietary supplements and other label and nutritional claims, and natural toxicants. The Food Laboratory is also a national leader in preparations to respond in the event of a terrorist incident involving the food supply.

Testing of food products using molecular methods, especially nucleic acid analyses based on the polymerase chain reaction (PCR), was significantly expanded during the year and includes testing for *E. coli* O157:H7 and Salmonella. Molecular methods for analysis of Hepatitis A in green onions, cyclospora in produce, noroviruses, and *Vibrio parahaemolyticus* and

Vibrio cholerae in shellfish are undergoing development or validation. Additionally, PCR was used to test animal feed for contamination by prohibited materials.

DNA fingerprinting, or pulsed field gel electrophoresis (PFGE), is being performed by the Food Laboratory for quality control as well as when unusual organisms are grown in the laboratory. The patterns produced by the PFGE are submitted through the USDA and the Florida Department of Health for inclusion in the PulseNet national database. This data can then be used by epidemiologists in search of the causative agent for outbreaks.

Food Analyses

During fiscal year 2003-2004, the Department performed 51,052 analyses on 9,700 samples. The majority of samples (8,333) were received under Division of Food Safety inspection programs and from other divisions, but significant numbers of samples (1,367) were also received from the joint state and federal Microbiological Data Program (MDP). Out of 8,333 regulatory samples, 7,629 samples, representing 91.55 percent of state program samples, were found to be in compliance with all applicable food safety requirements. A summary of regulatory pathogen analyses results is shown below:

Summary of Regulatory Pathogen Analyses	
Organism	Adulterated Samples
<i>Listeria</i> spp.	60 of 1,547
Salmonella	3 of 723
<i>E. coli</i> (generic)	67 of 2,625
<i>E. coli</i> O157:H7	0 of 191

Food safety issues remain a major emphasis of the analytical program. With the continued identification of food-borne illness outbreaks, increased monitoring for pathogens in ready-to-eat food is necessary. Microbiological pathogen analyses focused on Salmonella, *Listeria monocytogenes*, generic *Escherichia coli* (*E. coli*), and *E. coli* O157:H7. Targeted products for these analyses included

ready-to-eat produce, processed meats, ground beef, cheese, smoked fish, spices and sandwiches. As a result of past outbreaks, the Department continues to monitor fresh citrus juices. Additionally, analyses of bottled and vended water for adulteration by either microbiological or chemical contaminants represented a significant component of state surveillance programs:

Summary of Water Analyses	
Sample Type	Adulterated/Misbranded
Vended Water	36 of 1,205
Bottled Water	1 of 242
Ice	0 of 2
Total Water	37 of 1,449

In its fourth year, the USDA Microbiological Data Program (MDP) enabled Florida, California, Colorado, Michigan, New York, Ohio, Texas, Washington and Wisconsin to systematically monitor fresh produce commodities for salmonella and generic *E. coli*. A total of 1,367 samples were analyzed, a slight increase (3.4 percent) compared to the prior fiscal year. Commodities tested included leaf and romaine lettuce, domestic and imported tomatoes, cantaloupe and celery. During this fiscal year, the MDP program was expanded to include analyses for *E. coli* O157:H7. Further expansion of this program, both in types of organisms (adding testing for *Shigella*) and commodities tested (green onions, parsley and cilantro), is expected.

In August 2002, the Food Laboratory was certified by the FDA for microbiological testing of shellfish in support of the National Shellfish Sanitation Program (NSSP). Significantly, the Food Laboratory was certified after the initial evaluation for certification, and the microbiology section was commended for this accomplishment. The Food Laboratory is due for reinspection in 2005, and is maintaining competency for this certification.

Other areas of emphasis include monitoring juices, honey, syrups and vanilla for fraudulent formulations or adulteration; ground meats for fat claims and species identification; and artificial colors in candy, sodas and

bakery products. Bakery products are also monitored for insect filth and rodent contamination. Dietary supplements continue to be monitored for the presence of ephedra alkaloids.

Florida’s fresh seafood is monitored by the Department in response to concerns regarding safe levels of mercury, decomposition (histamine) and species identification. Fish tested by the Department include tuna, grouper, mahi-mahi, red snapper, salmon, swordfish, mackerel, blue marlin, amberjack and catfish.

The Department continues its extensive surveillance of products making nutritional claims such as “low carbohydrate” and “fat free.” Products making “sugar-free” claims have been under particular scrutiny due to their potential impact on diabetics and other consumers. Monitoring of undeclared food allergens continues with particular focus on milk, egg and peanut allergens. With the passing of the Food Allergen Labeling and Consumer Protection Act, the Department continues to ensure appropriate and understandable food allergen labeling.

The Molecular Section of the Food Laboratory participated in a collaborative study with the FDA Center for Veterinary Medicine on a PCR method which can detect five different kinds of prohibited materials (cattle, sheep, goat, deer and elk) in animal feed simultaneously. This testing was performed to assist in the development and validation of the method. The Molecular Section also helped the Bureau of Compliance Monitoring, the Bureau of Feed, Seed and Fertilizer, and the Division of Agricultural Environmental Services to fulfill their annual survey goal by testing 68 percent of these samples. A norovirus detection method for oysters developed in-house using an FTA filter was modified to detect Hepatitis A on green onions, the cause of a recent large outbreak. The Molecular Laboratory also tested, modified and developed a food sample preparation method for the CDC-LRN protocols for real-time PCR detection for certain pathogens on food samples. In collaboration with USDA and the University of Maryland on a study of acid resistance of *Listeria monocytogenes*, the Molecular Section analyzed a total of 104 food isolates using Pulsed Field Gel Electrophoresis.

ISO 17025 Accreditation

The Food Laboratory, in conjunction with the Bureau of Chemical Residue Laboratories, made significant progress toward the goal of ISO 17025 accreditation. Accreditation to this international standard is increasingly recognized as the primary standard for assessing the quality of test laboratories. The bureaus have commenced final preparation for an ISO 17025 audit. A quality manual has



been completed, and extensive efforts have been made in the areas of document control, written procedures and training documentation.

National Databases

The Food Laboratory continues to provide data to the FDA-supported eLEXNET national data system, which allows real-time exchange of information concerning potential or suspected food supply problems. Both Food Laboratory and Chemical Residue Laboratory staff are working on the eLEXNET Library of Analytical Methods pilot, and the use

of eLEXNET for Food Emergency Response Network (FERN) projects. Protocols for automated transfer of data from the Food Laboratory information management system to the MDP database have also been implemented.

The Chemical Residue Laboratory has submitted data to the eLEXNET national repository of food sample analyses. Data will be exported directly from the laboratory database to the eLEXNET system. An application was also developed which provides direct export of data collected for the Pesticide Data Program from the laboratory database to the PDP Oracle database in Washington, D.C.

Education and Training

Educational opportunities for laboratory personnel were emphasized in order to remain on the leading edge of science and technology. In July 2003, the Department hosted the Sixth Annual Florida Food-borne Pathogen Analysis Conference, held in conjunction with the 40th Annual Florida Pesticide Residue Workshop (FPRW). Both conferences are highly regarded for their excellence in content and speakers; they allow Department chemists and microbiologists to share the latest developments in technology with experts from other agencies and nations. The FPRW was attended by over 120 scientists and included representatives from six foreign countries. In addition, Department scientists have been active on several national committees and attended and hosted training workshops in order to update knowledge in the areas of analytical chemistry, microbiology, and new technologies.

**Protecting Citizens in the
Event of Food Terrorism**

Food Security/First Responder Training

Recognizing the ongoing public concern about terrorist actions against the food supply, the Department conducted a two-day training course for all food inspection field and headquarter personnel (three sessions statewide) to sharpen response skills. The Department's Office of Bio and Food Security Preparedness and Division of Food Safety, along with law enforcement agencies, collaborated to develop the course. The training focused on food security in food processing plants, warehouses and retail outlets. It also included incident command

training, digital photography for evidence gathering, chain of custody food sampling techniques, general evidence gathering and crime scene security, and personal security.

Responding to Biological Agents

The Food Laboratory continued its initiative to enhance capability to respond to a bioterrorist incident involving the food supply. Accomplishments in this domestic/food security initiative include maintaining strong partnerships with other state and federal agencies (including the Florida Department of Health, the FDA, the USDA and the CDC), operation of an active Biosafety Level-3 laboratory, the acquisition and use of sophisticated analytical equipment, and substantial ongoing training of staff in procedures for processing and analyzing samples suspected of containing bioterrorist threat agents. Staff attended training at the regional FDA and USDA laboratories, at workshops, via teleconferences and at the Food Laboratory itself. Additionally, bureau staff gave lectures and presentations on issues in domestic/food security at conferences throughout Florida, including a satellite teleconference on laboratory response sponsored by Florida State University.

The Food Laboratory has undergone inspections by both the CDC and USDA regarding its capability to safely handle and provide security of highly dangerous select agents, and the laboratory satisfied all requirements. This has allowed the Department to become the only state agriculture department to have a food laboratory in the national Laboratory Response Network for public health protection.

In addition, the Food Laboratory is an active member in a new national laboratory network, still in development, the Food Emergency Response Network (FERN). FERN is being formed to respond specifically to the threat of terrorism in foods. This participation means that validation of yet untested protocols to be used in the event of national food emergencies is being performed by the Food Laboratory.

Responding to Chemical Agents

The scope of both the Food and the Chemical Residue program is being expanded to include testing of food for



chemical agents of terrorism, and these laboratories are working closely with the FDA in developing rapid methods for this purpose.

In spring 2004, renovations of existing laboratory space were completed in the Chemical Residue Laboratory to provide space for separate and secure preparation and analysis of foods for presence of chemical terrorism agents. The renovated space also accommodates two state-of-the-art instruments purchased with Department of Homeland Security grant funding.

The Chemical Residue Laboratory is also a member of the national Food Emergency Response Network (FERN), and is leading efforts to develop capabilities for the analysis of a number of toxins and poisons which might be used in a chemical attack on the food supply. These rapid methods, designed to identify unknowns at toxic levels, require sophisticated instrumentation and a high level of technical

expertise. The collaborative contributions of these two state food laboratories to national food security exercises are making Florida a national leader in food safety and security.

Milk Products Division of Dairy Industry

The Department's Division of Dairy Industry ensures that dairy products purchased by Florida consumers are wholesome, produced under sanitary conditions, and correctly labeled. The division regulates the production, transporting, processing, distribution and labeling of milk and milk products. It establishes standards for these products, whether they originate in Florida or other states.

The division issues permits and conducts inspections for Florida dairy facilities. As of June 30, 2004, these facilities included:

- 189** dairy farms
- 19** milk processing plants
- 67** frozen dessert manufacturers
- 19** single-service milk container manufacturers
- 72** milk distribution depots
- 11** milk receiving, transfer, and wash stations
- 16** milk hauling services

In addition to its inspection program, the division collects and tests samples from dairy farms and processing plants for compliance with established product quality standards. These samples are collected by field inspectors and tested in a division laboratory for excessive bacteria and somatic cells and for the presence of antibiotics, added water and other impurities.

The programs administered by the Division of Dairy Industry are part of a uniform national dairy sanitation program outlined in the Pasteurized Milk Ordinance (PMO) published by the U.S. Food and Drug Administration. Likewise, most of the dairy product quality standards enforced by the division are part of the PMO or the Code of Federal Regulations. As in all states, both the PMO and the relevant sections of the Code of Federal Regulation have been adopted in state statute or rule.

The fact that all states have adopted uniform regulations makes it possible to ship dairy products from state to state with a minimum amount of interstate regulatory interference. The interstate shipment of dairy products is coordinated through the Interstate Milk Shippers Conference, an organization that includes representation from FDA, the dairy producing and processing industry, and all state dairy regulatory agencies.

Florida's Dairy Industry

Florida dairy farms are large, milking an average of about 750 cows each. In spite of the hot, humid climate, these cows average about 15,218 pounds of milk per year or about five gallons per day per cow. Even though the state's 142,000 dairy cows rank it first in the Southeast and 16th nationally, Florida still imports approximately 25 percent of its milk, and the proportion of imported milk is growing. Florida's 19 Grade A milk processors include four Dean Food plants, two Publix plants, one Winn-Dixie plant, and two plants owned by National Dairy Holdings Group, LP.

Dairy Inspections

The Division of Dairy Industry's 10 field inspectors are stationed from Miami to Pensacola. They make regular visits to dairy farms and processing plants to conduct inspections, consult with management and staff, and collect samples. During the past year, dairy inspectors performed 1,865 inspections at dairy farms and plants in Florida. They also collected 14,389 samples of milk and milk products. They made 1,158 inspections of milk transport tankers and bulk milk haulers.

Monitoring Antibiotics in Milk

The industry has established a rigorous program to monitor milk for contamination with residues of antibiotics commonly used to treat cows on dairy farms. During the 2003-2004 fiscal year, 57,507 transport tankers representing more than 2.7 billion pounds of milk were checked for antibiotics in Florida. Only 10 (one in 5,750) of these tankers were found to contain traces of antibiotics. All 10 loads were dumped. Nationally, about one in 1,880 tankers of milk is found to have antibiotic contamination. Florida dairymen do an exceptional job of preventing antibiotic residues in their milk.

Checking the Weight of Milk Products

The division has several inspectors trained to make official weights of milk products and has been monitoring weights of processed milk containers in Florida for over 17 years. During the year, inspectors conducted 124 of these weight checks and 97 percent of the lots passed.

An IMS Rating Officer routinely performs surveys for the purpose of determining compliance with the PMO. In addition, the FDA will conduct periodic check ratings to determine if both the industry and state regulatory agency are in compliance with the requirements in the PMO. A state that fails its FDA inspection can be denied the right to ship Grade A milk across state lines. During fiscal year 2003-2004, the IMS rating officer performed 12 plant surveys, 16 single-service container manufacturer surveys, and four farm group surveys involving 31 dairy farm inspections. FDA conducted six plant check ratings and five single-service container manufacturer inspections.



Aquaculture

The Division of Aquaculture was created in 1999 by the Florida Legislature and is responsible for six programs: aquaculture certification, aquaculture leasing of sovereignty submerged land, shellfish resources development, shellfish processing plant certification, shellfish harvesting area management, and technical support. Florida's aquaculture industry is one of the leading producers in the nation, with \$95 million in farm gate value during the 2003 production year.

Aquaculture Certification Program

Chapter 597, F.S., established the Aquaculture Certificate of Registration to recognize aqua-farming businesses. Aquacultural businesses in Florida are required to be certified annually and to attest that they will comply with the Best Management Practices provided in Chapter 5L-3, Florida Administrative Code. The Aquaculture Certificate of Registration is used to identify aquaculture producers as members of Florida's agricultural community and to identify aquacultural products produced in the state. Site inspections are conducted at aquaculture facilities to ensure compliance.

The Department certified 1,018 aquaculture facilities during fiscal year 2003-2004. Shellfish producers make up 50 percent of certified farms, 22 percent are ornamental producers, 20 percent produce food fish, and the remaining produce live rock, alligators and bait. Certified farms are found in 61 of the state's 67 counties, with the highest number of certified farms (20 percent) occurring in Levy County. Dixie and Hillsborough counties are next with 9 percent each.

Sovereignty Submerged Lands Leasing Program

The Department is responsible for the Aquaculture Lease Program under the provisions in Chapter 253, F.S. Currently, the Department administers 664 aquaculture leases containing about 1,581 acres, and 82 shellfish leases containing about 1,301 acres. Aquaculture leases are located in Brevard, Charlotte, Dixie, Franklin, Indian River, Lee, Levy, Monroe, Pinellas, St. Johns and Volusia counties. In accordance to its statutory mandate, the Department identifies tracts of submerged lands throughout the state that are suitable for aquacultural development. Twenty Aquaculture Use Areas have been identified by the



Department and authorized by the Board of Trustees in eight coastal counties, including Franklin, Dixie, Levy, Charlotte, Lee, Indian River, Brevard and Volusia.

Oyster Culture and Shellfish Resource Development Program

Under the mandate to improve, enlarge and protect the oyster and clam resources of the state, the Department is actively engaged in enhancing shellfish resources and restoring oyster reefs on public submerged lands. During fiscal year 2003-2004, the Department collected 63,116 bushels of processed oyster shell from processors in Franklin County and planted 127,872 bushels of shell on

public reefs. Oyster resource development projects were conducted in cooperation with local oystermen's associations in four coastal counties. A total of 261,870 bushels of live oysters were re-planted on public reefs in Franklin, Wakulla, Dixie and Levy counties.

Conserving Public Oyster Reefs

The Department is involved in a unique project applying its expertise and equipment to mitigate potential impacts on oyster resources in Apalachicola Bay. The Department is in a joint project with the Department of Transportation and the Department of Environmental Protection to enhance and restore public oyster reefs that may be adversely affected during the St. George Island Bridge Replacement Project. The mitigation plan involves the restoration of oyster reef habitat by placing processed oyster shell and live oysters on designated reefs.

Shellfish Harvesting Area Classification and Management Program

This program seeks to classify and manage Florida coastal waters for maximum use of shellfish resource, protection of public health, and promotion of a healthy coastal environment. The program is audited each year by the U.S. Food and Drug Administration (FDA) to ensure compliance with the provisions of the National Shellfish Sanitation Program.

A total of 38 shellfish harvesting areas are currently classified and managed statewide. During fiscal year 2003-2004, the required annual update reports were completed for all 38 shellfish harvesting areas and all of the shellfish harvesting areas requiring a triennial reappraisal report were completed. The data and reports support current classification and management for all shellfish harvesting areas.

During fiscal year 2003-2004, a total of 577 sampling excursions were conducted to collect and analyze 13,832 water samples for fecal coliform bacteria, and there were a total of 494 closures and re-openings of shellfish harvesting areas.

Shellfish Processing Facility Program

The Shellfish Processing Facility Program seeks to ensure wholesome shellfish products through inspection, education and enforcement of state regulations and national guidelines. The program is audited each year by the FDA to ensure compliance with the provisions of the National Shellfish Sanitation Program.

A total of 106 Shellfish Processing Plant Certifications Licenses were issued during fiscal year 2003-2004. A total of 464 regulatory processing plant inspections were conducted. Based on fiscal year 2003-2004 inspection results, 88 warning letters and 22 settlement letters were issued. Action was taken to destroy shellfish products when they were found to be adulterated, contaminated, unwholesome, mislabeled, or exceeding the product shelf life.

Technical Support Programs

The division provides substantial technical and administrative support for aquacultural and shellfish operations. Staff provides and participates in workshops, seminars and problem solving activities to help provide information to Florida farmers. In addition, staff manages contracts to researchers for legislative appropriation to provide quick answers to industry issues.





Conserving **THE NATURAL ENVIRONMENT**



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he Division of Agricultural Environmental Services continued its commitment to pesticide safety by evaluating the risks to human health and the environment posed by pesticides, and by providing technical guidance to mitigate unacceptable risks. During fiscal year 2003-2004, the division conducted reviews on over 130 active ingredients. These reviews may have arisen in response to EPA Re-registration Eligibility Documents, public inquiries, registration activities, or by requests from other state or federal agencies. Major program areas this year included technical reviews for pesticide registration, ground and surface water protection and monitoring, endangered species protection and termiticide efficacy reviews.

Registration Technical Reviews

During the 2003-2004 fiscal year, Scientific Evaluation Section (SES) staff reviewed a total of 63 special category pesticide registration applications (new active ingredients, significant new uses, special local needs, and experimental use permits). The environmental fate and non-target risk assessments of the 63 registration items were presented during the monthly meetings of the Pesticide Registration Evaluation Committee (PREC). Refinements by SES in modeling scenarios for the fate of pesticides and ecological risk assessments for surface water enabled the division to more thoroughly evaluate the potential risks of each of these products. All of the applications were approved after determining that the products would introduce no unacceptable risk to consumers, workers, applicators or the environment when used according to the label. In some cases, product registration was approved on the condition that additional technical studies are submitted to assure that the product would not adversely impact water quality, non-target species or human health.

Pesticide reviews continue to be maintained in an electronic format for easy tracking and retrieval, and a database of adverse effects reports is routinely updated. The SES staff continues to attend training programs to upgrade and maintain technical skills, as well as programs focusing on air modeling, risk assessment, worker safety, and quality assurance.

SES evaluated the environmental fate and potential toxicity of emergency-use exemption (Section 18) petitions using many of the methodologies recently developed for special category registrations to bolster the review process. These efforts contributed to the U.S. Environmental Protection Agency granting 11 emergency exemptions for Florida.

Ground Water Protection

The Division of Agricultural Environmental Services' goal of managing pesticides was enhanced by several efforts. The Lake Wales Ridge Monitor Well Network (LWRMN), located in the citrus-rich Lake Wales Ridge Region of Polk and Highland counties, is a collaborative effort by the division, the U.S. Geological Survey and the Southwest Florida Water Management District. The 31 wells of the network continue to be sampled quarterly to assess



temporal trends in ground water pesticide and nitrate residue levels. This network allows the Department to evaluate the relationship between agrichemical use and ground water quality in a geographic area that is highly susceptible to contamination. The continued sampling of this network provides important information on the fate of agrichemicals in vulnerable Florida soils and may also provide for an early indication of potential future drinking water threats. The division communicates sampling results with stakeholders in order to promote responsible pesticide management and environmental protection.

The division continues to explore the potential relationship between the use of arsenical herbicides and elevated levels of arsenic residues in ground water at golf

courses. A series of meetings was held with other state agencies and stakeholders to review existing data and develop a course of action. The division requested that registrants of MSMA, a commonly used turf herbicide, conduct a prospective field study in Florida to determine if the product poses an unacceptable risk to ground water. Over the past year, this effort has progressed significantly. Specifically, the Methane Arsenic Acid Task Force has agreed to conduct a prospective ground water study and division staff have conducted reviews of the proposed study protocol. The division is also consulting with other agencies regarding the assessment and management of other potential sources of land-applied arsenic. Specifically, the Scientific Evaluation Section developed a draft tool intended for use by land managers to help them make informed decisions on the impact of agronomic practices on soil arsenic levels.

The division has also been involved in the planning and performance stages of two water quality monitoring studies required as a condition of the registration of thiamethoxam. The prospective ground water study is under way, and staff is anticipating an 18-month progress report early in fiscal year 2004-2005. The division has reviewed the registrant's plans and designs for a retrospective ground water study and provided comments to ensure reliable, accurate and useful data.

The division continues to provide technical support for a study examining the effect of agricultural management practices on nutrient levels in shallow ground water in the Middle Suwannee River Basin. Division staff aided in the collection of biweekly samples from the 12 existing monitoring wells. A field audit was conducted to assure compliance with quality assurance requirements. The final audit report is anticipated in early fiscal year 2004-2005.

In May 2005, the use of fenamiphos is scheduled to be prohibited on hydrologic Class A soils with a water table within 50 feet of the land surface. In order to guide users of fenamiphos and to improve the enforceability of this restriction, the Scientific Evaluation Section has begun developing a GIS-based map of restricted soils in

Florida. The ultimate goal would be to make this application available to users and inspectors via the Department's web site.

Surface Water Protection

The Division of Agricultural Environmental Services continued to support surface water field projects located in the Indian River Citrus Area of the St. Lucie River watershed. Throughout the year, the division provided technical support for an integrated effort to implement a comprehensive program of practices, including surface water monitoring that would enhance citrus production while protecting the quality of water resources. Selected activities included:

- ◆ Completion of two agrichemical management projects in a demonstration citrus grove. These projects assessed the effects of different herbicide bandwidths on the off-site migration of nutrients, metals and pesticides to surface water.
- ◆ Participation in an interagency technical advisory committee to review scientific study proposals and resulting data that measure surface water and sediment concentrations of agricultural and residential pesticides.
- ◆ Completion of an intensive sampling program in Ten Mile Creek. The results will be used to assess the effectiveness of Best Management Practices (BMPs) implemented as a result of the adoption of the Citrus BMP Manual and to validate a predictive watershed model which will be used by the Florida Department of Environmental Protection and the South Florida Water Management District as an additional tool for assessing effectiveness of intended BMPs on a watershed scale. Data will also be used to demonstrate the validity of a surface water study decision support system and to evaluate the risk that pesticides and metals may pose to aquatic species detected in surface water. A manuscript describing pesticide detection data and an assessment of risk to non-target organisms has been accepted for publication in a peer-reviewed scientific journal.

The division continues to review the results of the pesticide-monitoring network for surface water in South Florida. In order to support stewardship efforts, the division began notifying registrants who sell or distribute products whose active ingredients are detected in surface water at concentrations of concern.

The division provided technical guidance to the registrant on the study design and conducted a site visit in relation to three surface water studies conducted on fipronil. Fipronil was granted a conditional registration due to concerns over its potential to adversely impact neighboring surface water bodies. The registrant has completed the sampling phases of two freshwater runoff studies and is currently conducting an estuarine runoff

effectiveness studies support the division’s pesticide and nutrient management efforts.

Quality Assurance and Quality Control (QA/QC)

The Division of Agricultural Environmental Services continued to provide quality assistance and quality control (QA/QC) audit service to assure that field studies were conducted according to appropriate procedures. Audits were performed for the Florida Aquaculture Water Quality Study and the Suwannee River Water Quality Nitrate Project. Every five years, the EPA requires that any agency receiving funds for environmental monitoring submit a Quality Management Plan (QMP), which describes the system that an organization has

Further progress was made on the development of the Endangered Species County Bulletins, which comprise the educational component of the Endangered Species Protection Program.

study. The division will review the final reports on the freshwater studies and the annual report of the estuarine study upon receipt.

BMP Development and Management

The Division of Agricultural Environmental Services continued to participate in a multi-agency task force in the development of water quality protective BMPs for citrus growers in the St. Lucie River and Estuary. The division — in collaboration with the Office of Agricultural Water Policy, the Florida Department of Environmental Protection, and the South Florida Water Management District — developed a scientific study to assess the effectiveness of implemented water quality protective practices in the Indian River Lagoon Watershed. The division is an active participant in the Department’s efforts to develop agricultural management strategies which will mitigate pollutant migration to waters of the state. The division continues to provide technical assistance for BMP-related activities, as well as scientific evaluation of their effectiveness once implemented. Data from

implemented to ensure the gathering of accurate and reliable data. This past fiscal year, the division submitted an update of the QMP and received comments from EPA. Scientific Evaluation Section staff are in the process of finalizing this plan.

During this fiscal year, staff developed a guide to quality assurance plans for investigators and registrants conducting termiticide efficacy studies. The purpose of the QA plan is to safeguard the integrity of the study and the usefulness of the data produced. Chapter 5E-2.0311, FAC, requires that research and data collection for field plot and building tests be conducted under GLP Standards, an EPA-approved QA project plan, or an FDACS-approved QA plan. The developed plan has direct applicability to future termiticide efficacy submissions.

Endangered Species Protection Program (ESPP)

This year the Department made further progress on the development of Endangered Species County Bulletins, which comprise the main educational component of the

Endangered Species Protection Program (ESPP). These County Bulletins provide GIS endangered species habitats developed by the Florida Natural Areas Inventory (FNAI) and habitat data developed by Florida's Water Management Districts. The accuracy and detail of the maps will not only aid in the protection of Florida's endangered species from the use of pesticides through risk mitigation, but should minimize the impacts of these strategies on pesticide users by reducing the area in which these restrictions are appropriate.

The U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service in Jacksonville, the FDACS Division of Forestry, and FNAI have reviewed six draft County Bulletins. Once final drafts of these County Bulletins are



accepted by EPA, they will be made available to the public for review via the Department's web site. The bulletins for Gadsden, Liberty, Jackson and Gulf counties cover three endangered plant species — the Florida torreya, fringed

campion, and Chapman's rhododendron. The Okaloosa and Walton County Bulletins include species information and habitat maps for the Okaloosa darter, the first fish species to be incorporated into a County Bulletin for Florida. Additional reviewers are being considered, including individuals from various state and federal agencies.

Draft County Bulletins incorporating species information and habitat maps for the Everglade snail kite have been reviewed. A total of 10 habitat maps were required to cover the entire range of the Everglade snail kite. These maps are now incorporated into draft County Bulletins for Broward, Collier, Dade, Glades, Hendry, Indian River, Lake, Marion, Martin, Monroe, Okeechobee, Osceola, Palm Beach, Polk and St. Lucie counties.

Termiticide Efficacy Review

Following adoption of the Termiticide Efficacy Rule (5E-2.0311, FAC) to protect Florida homes from termites, the Division of Agricultural Environmental Services met with numerous registrants to discuss the data submission format and the review process. To date, the division has received efficacy packet submissions from 19 registrants associated with over 40 products. The Scientific Evaluation Section (SES) has completed seven efficacy reviews and has accepted several protocols designed to gather the necessary data. SES continues to provide oversight to assure that registered products satisfy the rule. Since the rule allows the necessary time to gather the required data if the product was registered at the time of rule, the division anticipates further submission and review of annual progress reports as the 2004-2005 year commences.

Pesticide Usage Information

The Department completed and posted on its web site the Pesticide Use Information Report, which included data from 1999 to 2002. This report provides Florida-specific survey results on (1) the average number of pesticide applications each crop receives for each pesticide, (2) the amount of active ingredient (AI) applied per application, (3) the amount of AI applied per acre per crop year, and (4) a calculation of the total pounds of AI applied per crop. The report also includes the percent of statewide area treated for the 32 major crops in Florida. The data was

compiled from the National Agricultural Statistics Service of the U.S. Department of Agriculture, and the Florida Agricultural Statistics Service.

Pesticide Registration Section

The Pesticide Registration Section registers pesticides that are distributed, sold or offered for sale in Florida. During the 2003-2004 fiscal year, a total of 13,444 pesticide brands were registered for sale and distribution in Florida. Approximately \$3.4 million in registration fees was collected to support the Department’s pesticide programs.

Included in this total are special registration actions such as Experimental Use Permits, Special Local Need, New Active Ingredient, and Significant New Use registrations that are processed, reviewed and issued through this office. These special registrations are reviewed by the Department and other affected state agencies through the Pesticide Registration and Evaluation Committee (PREC), a consensus-determining body that is responsible for evaluating pesticides and advising the Department of risks posed by registration and possible solutions or actions for reducing risks to acceptable levels. The Registration Section’s professional staff serve as both liaison and active participants in the PREC process. This fiscal year, 12 Special Local Need registrations, nine Experimental Use Permits, 18 Significant New Use and 19 New Active Ingredient registrations were evaluated by the Department under this process.

Florida’s diverse agricultural system, mild climate, tourism and trade activities make the state particularly susceptible to the introduction and proliferation of pests. When an “emergency condition” arises and there are no effective registered pesticides available to control a new pest or avert an anticipated significant economic loss due to an urgent and non-routine pest problem, the Department may submit petitions to the EPA for emergency exemptions from

registration. Pest emergencies often involve introduced pest species with the potential to inflict millions of dollars of losses in affected crops and commodities. Exemption requests frequently seek the use of new, low-risk chemicals that may actually decrease the total use of chemicals on the affected crops through their compatibility with integrated pest management programs and the elimination or reduction of repeated applications of broad-spectrum pesticides of limited efficacy.

The approval of emergency use exemptions is a critical part of the Department’s efforts to assure the long-term viability of Florida’s specialty crop producers and continued economic development. The process provides important crop protection tools that maintain Florida’s competitiveness in key domestic and international markets.

With the Department’s technical support, the U.S. Environmental Protection Agency (EPA) issued 11 emergency exemptions for pesticide use in Florida in fiscal year 2003-2004. The Department supported



Florida’s fruiting vegetable industry with a petition to the EPA for the use of thiophanate-methyl to prevent potentially serious losses due to white mold, and a petition for the use of carfentrazone-ethyl to control nightshade, morningglory and purslane. In submitting the latter request, the Department continues to participate in the EPA’s Section 18 Pilot Program for Annual Renewal of Exemptions for “reduced-risk

pesticides.” Important exemptions were also obtained for thiophanate-methyl for control of post-bloom fruit drop and stem-end rot in citrus, and fenbuconazole to control greasy spot in grapefruit.

For the sixth consecutive year, the Pesticide Registration Section worked closely with the beekeeping industry and the Department’s Division of Plant Industry in obtaining the use of coumaphos to control the small hive beetle and varroa mite in honeybee colonies. After the documented development of coumaphos-resistant mite populations, the Department was also successful in petitioning the EPA for the use of an alternative product containing thymol as an additional material for control of this devastating pest. Efforts by the section were also successful in submitting a petition to EPA for the use of thiophanate-methyl for the control of Fusarium hardlock in cotton, a condition that resulted in severe yield losses in cotton in 2002. This request incorporates recent ground-breaking work by the University of Florida’s Institute of Food and Agricultural Science scientists identifying Fusarium as the primary causative agent for hardlock.

plans to continue with the training of enforcement staff and to announce system availability for online public access and searches of currently registered pesticide product brands in Florida.

Pesticide Laboratory

The Department’s Pesticide Laboratory analyzes a variety of official samples, including formulated pesticide products, pesticide application tank mixes, and environmental samples to support compliance investigations and environmental monitoring activities. Formulation analyses are performed in accordance with Florida Statutes for label guarantee, and tank mix samples are performed to assess the use percentages of the active ingredient. A total of 400 formulation and/or tank mix samples were analyzed, requiring 9,665 sample determinations to verify whether the correct percentages of guaranteed active ingredients were within allowable tolerances. The rate of violations incurred for product formulations testing this past year was 5.1 percent. This is similar to last year’s violation rate of 4.8 percent. The directed sampling approach to sampling formulated products, which was developed jointly by the Pesticide

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During fall 2003, the Pesticide Registration Section successfully migrated from a legacy mainframe application to an Internet-based Oracle application to track Florida’s pesticide product brand registration activities. The section is in the process of updating the 2004 product brand registration information in the new Registration Tracking System (RTS). In addition, financial information is also currently linked to RTS from revenues collected from the Department’s Bureau of Finance and Accounting. RTS will provide the division’s pesticide enforcement program with real-time status of product brand registration information, enhancing its ability to assure compliance. The section

Laboratory and the Bureau of Compliance Monitoring, was utilized for the second year in order to test a wider scope of products, in a variety of categories, to ensure public safety and minimize environmental impacts. This approach has improved the division’s ability to focus on pesticide products that may not be in compliance with guarantee tolerances.

In support of registration and technical assessment activities, 414 environmental samples were analyzed, requiring 33,756 determinations. The laboratory also responded to a wide variety of method development requests during the past year. Method development work

for individual compounds and related analytes was conducted in various formulated product materials and/or environmental matrices for chlorfenapyr, pyriproxyfen, fluridone, 2,4-D and phenoxyacids, etridiazole, tebuconazole, cacodylic acid, MSMA, DSMA and carfentrazone-ethyl.

To ensure a high quality of analysis, the laboratory analyzed 1,150 quality control samples, requiring 9,512 determinations. Quality assurance samples were analyzed for method development and validation as well as for control of routine sample analyses. Significant gains were made with regard to quality assurance during this past year. Specifically, a number of new standard operating procedures were written or updated and subsequently implemented. In addition, the laboratory's technical training program now includes quarterly in-house proficiency samples.

The laboratory reported approximately the same total number of sample determinations during fiscal year 2003-2004 (52,933) as were reported for fiscal year 2002-2003 (49,589). The total number of samples analyzed during fiscal year 2003-2004 (1,964) was also approximately the same as during fiscal year 2002-2003 (1,793).

The laboratory acquired four new mass spectrometers as a result of funding received from the U.S. Department of Justice for homeland security programs. The triple quadrupole High Pressure Liquid Chromatography / Mass Spectrometer (LC/MS/MS) system and the Ion Trap Gas Chromatography / Mass Spectrometer (GC/MS) system will enable the laboratory to perform both identification and spectral confirmation of numerous pesticide and other compounds in environmental matrices. The Purge/Trap Gas Chromatograph / Mass Spectrometer (GC/MS) provides the instrumentation to analyze semi-volatiles and volatile compounds in environmental matrices such as soil and water. Further, the Thermal Desorption / Mass Spectrometer provides the capability to conduct air monitoring sample analysis. The laboratory developed and implemented a database to manage its analytical reference standard materials. The laboratory also implemented its Laboratory Information Management System (LIMS). This automated electronic sample

processing software allows the laboratory to navigate and track all sample analysis activities, further enhancing the overall quality and efficiency of data generated for the laboratory's customers.

Pesticide Certification and Licensing

The Pesticide Certification and Licensing Program helps ensure a safe food supply, healthy environment, and the protection of workers and the public through training and competency testing of pesticide users. This program is coordinated with the U.S. Environmental Protection



Agency (EPA) and the University of Florida (UF) to ensure consistency in educational efforts and certification standards. EPA has approved the Department's program as meeting federal pesticide applicator certification requirements, and EPA staff provide limited guidance and program assistance as needed. UF assists by developing training manuals and certification exams and administering the majority of the certification exams.

In fiscal year 2003-2004, the Department issued or renewed 3,265 pesticide applicator licenses and 453 pesticide dealer licenses. The total number of active licenses as of June 30, 2004, was 12,074. Department staff approved 706 pesticide training programs to issue continuing education units (CEUs) for pesticide applicator re-certification and license

renewal, making available 2,927 CEUs for license renewal. Department staff also monitored 52.5 hours of training classes throughout the state and gave 42 presentations on pesticide laws and regulations, licensing requirements, and procedures relevant to pesticide use.

Aldicarb Permit Program

The Aldicarb Permit Program tracks the use of the restricted-use pesticide aldicarb (Temik) in Florida to ensure protection of ground water from contamination with aldicarb residues. All uses of aldicarb must be approved prior to application, and soil type and wells must be identified for each application site before permits are issued. In fiscal year 2003-2004, the Department issued permits for aldicarb to be applied to 3,266 sites in Florida, which included 289,034 acres of citrus, 34,953 acres of potatoes, 22,119 acres of cotton, 23,793 acres of peanuts, and 105 acres of soybeans. Information about the aldicarb program and permit applications are available on the Department web site www.safepesticideuse.com.

Worker Protection Program

The Department, in cooperation with other agencies and organizations in the agricultural community, continues to play an active role in the implementation of the Federal Worker Protection Standard (WPS) in Florida. This EPA regulation is designed to protect agricultural workers and pesticide handlers from the potential hazards of working with and around pesticides. The Department assists growers, extension agents, training groups and others by providing interpretive guidance and training assistance on the WPS. In fiscal year 2003-2004, Department staff also participated in two EPA-sponsored pilot workgroups — one on hazard communication for agricultural workers, and the other on train-the-trainer methods and materials. These programs are aimed at improving and increasing training and pesticide safety awareness in the agricultural community.

In fiscal year 2003-2004, the Department certified 256 WPS worker and handler trainers and provided them with trainer packages informing them of the Department’s role in WPS and listing WPS resources for further assistance. The Department also issued 13,038 WPS training

verification cards to Department-certified WPS trainers for distribution to the agricultural workers and pesticide handlers they train.

Aircraft Registration Program

In 2002, the Department implemented a registration program for aircraft used to apply or dispense pesticides, fertilizer and seed. Aircraft owners/operators are required to register all aircraft used and must also report to the Department all sales, purchases, leases and other transactions involving these aircraft. There are currently 127 aircraft registered, and the number registered to apply each of the following products is as follows:

87	public health pesticides
41	agricultural pesticides
29	fertilizer
24	seed

Pest Control Section

The Pest Control Section investigated 598 formal consumer complaints and conducted 3,892 licensed business inspections. Enforcement activities resulted in the issuance of 337 enforcement actions and the imposition of \$52,500 in fines. The Department issued or renewed 3,997 business licenses, 6,762 certified operator’s certificates, 29,321 employee identification cards, and 2,617 limited governmental/private and limited lawn maintenance certificates. Certification examinations were administered to 2,166 applicants. The Department continued efforts to improve compliance with requirements for safe fumigation and preventative treatments for new construction. Changes in industry practices required development of an inspection technique for checking borates insecticide applications; increased inspections on this treatment are expected for the coming fiscal year.

Mosquito Control Section

The Department held five meetings of the Florida Coordinating Council on Mosquito Control during fiscal year 2003-2004. Some of the issues considered included use of Permethrin for aerial application, the state’s West Nile Virus response plan, research priorities, enforcement policy and consumer assistance.

There were 17 Public Health Pest Control certification training sessions provided, and 338 certificates were issued or renewed. Aerial Public Health Pest Control certificates were issued or renewed for 35 applicators. Active licenses for the section include 1,516 Public Health Pest Control certified applicators and 131 Aerial Public Health applicators. During the fiscal year, the Department awarded \$2,125,000 in mosquito control aid to the districts and allocated \$250,000 for mosquito control research through its competitive grants program.

**Operational Support
Dog- Fly Program**

Operational Support completed 79 inspections and investigated eight complaints regarding mosquito control activities, which resulted in the issuance of three advisory notices and four administrative actions. During the reporting period, 20 dog-fly control missions were conducted, covering 32,102 acres and applying 166.92 gallons of pesticide (Dibrom). No mosquito control missions were conducted during this period.

West Nile Response

Four counties — Union, Okaloosa, Nassau and Bay — requested spraying assistance from the Department during the reporting period. Because adult mosquito surveillance indicated too few mosquitoes to justify operational activity, the counties were not sprayed.

**Commissioner's
Agricultural-Environmental
Leadership Awards Program**

The 10th annual Commissioner's Agricultural-Environmental Leadership Awards were presented to three Florida agricultural operations in recognition of their leadership in promoting progressive environmental practices. The presentation took place during the Florida Farm Bureau's annual convention in Daytona Beach on October 24, 2003.

Three winners were selected from the group of finalists by a selection committee made up of representatives from the Nature Conservancy, the state's Water Management Districts, the Florida Farm Bureau, the Florida Cattlemen's Association, the Florida Dairy Association, the Florida

Department of Environmental Protection, the Florida Fruit and Vegetable Association, the Florida Citrus Mutual and the Florida Forestry Association.

The winners were:

- ◆ Williamson Cattle Company, a family-owned corporation established in 1951. This 9,000-acre ranch and citrus operation in Okeechobee has been balancing a successful agricultural operation with Florida's environmental concerns for many years.
- ◆ Sun City Tree Farm in Ruskin. This nursery — located in the area of Hillsborough County under critical water constraints — routinely used only 60 percent of its permitted amount of water as a result of innovative conservation practices.
- ◆ Aquatica Tropicals, Inc., in Plant City. This high-tech ornamental aquaculture production facility produces and markets 150,000 to 200,000 fish per week using a closed-recirculation system that dramatically reduces the need for ground-water pumping.

**Forestry Programs
New Initiatives**

This year, the Division of Forestry implemented a very effective fire prevention radio campaign with Florida's Radio Networks (FRN). Combined use of a 30-second and a 60-second fire prevention PSA reached an estimated 3 million Floridians from mid-April to July with over 3,000 broadcast messages.

The division completed production of two CD-ROMs: "Living on the Edge in Florida," and "How to Have a FIREWISE Home." In cooperation with the Florida Department of Community Affairs, the Division of Forestry produced the publication "Wildfire Mitigation in Florida: Land Use Planning and Best Development Practices." These educational materials will be used to help homeowners plan communities that are safer from wildfire. Also, over 2,000 Florida Wildfire Prevention CD-ROMs were distributed free of charge to Florida school teachers in grades four through eight.

The Division of Forestry continues to add to the implementation of the Fire Management Information



System (FMIS) for tracking and dispatching emergency response resources, managing the open-burning program, tracking law enforcement and reporting wildfire statistical information. The Smoke Screening Tool has been integrated into this system for use by cooperators as well as division personnel. A version of the internal incident mapping system that maps individual wildfires and burning authorizations has been made available to the general public. The Division of Forestry is the first in the nation to offer this type of service. The division is in the process of making available statistical fire management data concerning Florida's prescribed burning program as well as data on wildfires.

Wildfires

The Department is responsible for wildfire prevention, detection and suppression in Florida.

There was an increase in the number of fires from the previous fiscal year. There were 3,429 wildfires in fiscal year 2003-2004, compared to 2,049 in fiscal year 2002-2003. Human-caused wildfires also increased; there were 2,599 in 2003-2004 and 1,628 in 2002-2003. The increase in fire activity was due to more severe drought conditions throughout the state. The leading cause of wildfires was debris burning, accounting for 819 of the wildfires.

The division mobilized two Incident Management Teams to manage suppression efforts on major wildfires in North Florida in spring 2004. The Green Incident Management Team and 135 division personnel were deployed to the Impassable One Complex, which started on the Osceola National Forest. The Blue Incident Management Team and 170 personnel were deployed to the Suwannee Road 1 Fire, which started on the John M. Bethea State Forest. The Blue Incident Management Team also managed suppression efforts on the nearby Santa Fe Swamp Fire, which started in the Santa Fe Swamp Conservation Area, and 56 personnel were reassigned to this fire from the Suwannee Road 1 Fire. None of these wildfires resulted in a FEMA emergency declaration.

The division also supported the western United States fire season in fall 2003. Approximately 281 personnel, three Incident Management Teams (Blue, Red and Gold), and seven hand crews were deployed to assist the western states in fire suppression activities.

Forest Protection

A total of 2,694 media contacts were made as part of the Department's wildfire prevention campaign through the use of wildfire prevention programs and wildfire mitigation specialists. The six wildfire mitigation

specialists prepared 102 news releases and conducted 25 local FIREWISE or fire prevention workshops for over 9,000 participants. One FIREWISE Communities/USA workshop was held at the Florida Center for Wildfire and Forest Resources Management. This resulted in two Florida communities being accepted into the national FIREWISE Communities/USA program — Verandah in Fort Myers, and Lakewood in Starke.

In fiscal year 2003-2004, over 2,122 structures were threatened by wildfire, with another 128 damaged.

The four Fire Management Teams assisted the Forestry Districts and Centers with prescribed burning and mechanical hazardous fuel reduction on approximately 12,619 acres, reducing the threat of damaging wildfires to 8,927 homes valued at over \$1.89 billion.

The Department had a successful year of training at the Florida Center for Wildfire and Forest Resources Management Training. Two classes of Basic Fire Control Training were held for 56 new students receiving certification as wildland firefighters in Florida. The center provided 44 National Wildfire Coordinating Group (NWCG) courses to 579 Division of Forestry students and 522 non-division (cooperator) students. The training center also had 416 division and 240 non-division students attend 20 other management and resource courses throughout the year. The individual districts offered over 100 NWCG courses throughout the year. Over 3,300 division or cooperator personnel are qualified for incident command positions for use on “all risk” incidents statewide.

The Department administered the Volunteer Fire Assistance Grant Program to volunteer fire departments that serviced communities with a population of 10,000 or less. Approximately \$282,031 was awarded to 108 fire departments. This was a 50 percent matching fund, which enabled the fire departments to purchase approximately \$564,062 of equipment and supplies.

The division screened almost \$5 million worth of federal excess property to support its fire program.

The Florida Wildland Fire Risk Assessment was released on June 8, 2004. There are two versions of the tool. The

first version is the stand-alone application that uses ArcView and Flammap to view and alter the fuels/occurrence data so that users can see what impact a fuels management or prevention program might have in their area. This way the managers can decide the most effective treatment for their area and proceed to the cost/benefit stage of the analysis. This program will also steer the statewide mitigation efforts toward the highest priority areas in the state. With limited resources, the division must make decisions about where to place its resources for fuels mitigation. The question “Are you living in the red?” has become the slogan for this program. The division’s goal is to turn red and yellow areas on the map to cool green. The second version of the Florida Wildland Fire Risk Assment is called WEB_FRAS. This application allows the general public to view via the Internet any area within Florida and the associated risk from wildfire.

The Department continues to promote the Fire in Florida’s Ecosystems program, which provides fire ecology and prescribed fire instructional materials to educators. The hands-on activities are designed to help prepare fourth- to 10th-grade students for standardized testing. This past year, more than 350 teachers were trained to use the program as part of their curriculum. Each teacher was trained to use the Educators’ Guide, student workbook, videos and posters, other supplemental materials, and the interactive “Burning Issues” CD-ROM.

Natural Resource Management

The Department manages natural resources by acquiring land, providing technical assistance to private landowners, and operating programs on state forests and other state lands. The Division of Forestry employs multiple-use principles to ensure a sustained healthy forest for 991,393 acres on 31 state forests. The most current scientific knowledge is used to ensure good stewardship and the practice of silviculture based on sound ecological principles. The Department supports other state agencies as a cooperating manager on 275,000 acres and assists management on an additional 475,000 acres of public forests through special agreements with such public entities as the Department of Environmental Protection, the Florida Fish and

Wildlife Conservation Commission, Water Management Districts and various counties.

Agreements with willing sellers of property worth approximately \$1.279 million were prepared to acquire 551 additional acres through the agency's in-holding and addition program. A total of 33,257 acres was added to the state forest system during the year under Florida's Conservation Land Acquisition Programs.

All of these lands are managed to provide as many compatible uses and benefits to the public as possible while still providing protection for threatened or endangered species of plants and animals. Public recreational opportunities on these lands include fishing, hunting, hiking, picnicking, canoeing, camping, swimming, bird watching, bicycling and horseback riding. Approximately 650,536 visitors participated in these activities during the year.

The management of state forests generated revenues of approximately \$5.87 million during the year, with an estimated \$4.46 million coming from the sale of timber and the remainder coming from other state forest income, including recreation fees charged by the Department.

The Department pays 15 percent of the revenue from state forest operations to the counties in which these forests are located. The revenue returned to counties for fiscal year 2003-2004 was \$617,431. There are substantial direct and indirect benefits provided to local governments from the management of these lands.

Technical Assistance

The Department provides technical assistance to help private landowners and communities make intelligent decisions to develop and achieve their objectives in forest land management.

The Forest Land Enhancement Program (FLEP), which is part of the 2002 Farm Bill, began its first year in Florida. The Department awarded a total of \$528,878.70 in cost-share money to non-industrial private forest landowners to help them implement forest management activities on their property. This cost share amount reached a total of 260 landowners on 19,862 acres throughout the state.

Florida's Forest Stewardship Program is part of a national initiative to encourage private forest landowners to manage their properties for multiple use. Through the Department's leadership, 184 forest stewardship plans were completed on 72,485 acres, and 78 landowners were certified as implementing forest management practices in the Forest Stewardship plans during the year.

The Department's Andrews Nursery produced and sold 5.3 million bare-root pine seedlings and 3.5 million containerized pine and wiregrass seedlings to 692 Florida customers. This produced more than \$685,324 in revenue.

The Department administered \$1.1 million in federal urban and community forestry grants that were provided to nonprofit organizations, local governments and educational institutions for tree planting and other projects that enhance communities' ability to care for their public tree resources.

Hydrology

The Division of Forestry is responsible for development, implementation and monitoring of silviculture Best Management Practices that protect the state's water resources, and for implementing hydrologic and wetland restoration on state forests.

The division significantly revised the state's silviculture Best Management Practices (BMP) Manual to incorporate new research information on cypress regeneration and wetland timber harvesting. As a result, a new BMP Manual was printed and distributed, and 27 workshops were held throughout the state to inform landowners, loggers and foresters of the changes. More than 790 individuals participated in these training sessions. The division also published the 2003 Silviculture BMP Implementation Survey, which showed compliance with BMPs at 97 percent statewide.

In addition, the Division of Forestry established Rule 5I-6 to provide additional incentives for landowners to comply with forestry BMPs. These incentives include property rights protection under Florida's "right-to-farm" act, and a presumption of compliance with state water quality standards where BMPs are followed. Rule 5I-6 became

effective on February 11, 2004, and over 300,000 acres of forest land have been enrolled in the program through the end of the fiscal year.

The division also coordinated the completion of 11 wetland restoration projects on nine different state forests. These projects restored a total of almost 4,000 acres of wetlands that had been historically altered, at a cost of \$248,000. The division incurred 20 percent of those costs; the other 80 percent was provided through sources outside the division, such as mitigation funds and grants.

Field Operations

The division’s forestry programs are implemented by Field Operations staff located in the state’s 15 field units and Tallahassee state office. The field units are grouped into four regions, each under a Deputy Chief of Field Operations. The multifunctional workforce of personnel and equipment provides a responsive and comprehensive approach to land management and wildfire control statewide.

Forest Resource Planning and Support Services

The Bureau of Forest Resource Planning and Support Services provides support to all other bureaus within the Division of Forestry. Sections include technical and professional staff to address issues in Information Technology, Construction, Equipment/Telecommunication, and Planning and Information.

Information Technology

The Forestry Information Technology Section supports microcomputers, applications, Geographic Information Systems (GIS) and Global Positioning Systems (GPS) for the Division of Forestry throughout the state. Related functions include: hardware and software acquisition, installation and maintenance; intranet/internet web page management; application development and maintenance; ongoing upgrading of computer networks; and spatial analyses in support of state lands management and wildland fire protection.

During fiscal year 2003-2004, the primary tasks for the section focused on the deployment of the Fire Management Information System (FMIS). The FMIS is a significant

breakthrough application integrating user input and weather modeling to forecast smoke impact from a prescribed burn and wildfire incident tracking. The application allows division staff to have instant access to data statistics and pinpoint map images displaying statewide and local activity level. The technology components of the application have established a solid foundation for future electronic information sharing including web, database and high-end workstation computers.

A Communities at Risk wildland fire study was completed for GIS analysis. This study was an extension of the Fire Risk Assessment System (FRAS) deployed in fiscal year 2002-2003 and will assist in prioritization of mitigation measures.

Other projects involved deployment of 173 new computers, desktop software updates to guard against viruses and security threats, and networking of the Jennings State Forest office.

Equipment/Telecommunication

The Bureau of Forest Resource Planning and Support Services has statewide responsibility for administration of fleet management and telecommunications systems.

The bureau purchases, manages and maintains all fire fighting/suppression vehicles and land management equipment for the Division of Forestry. It also staffs 15 district equipment repair facilities. In fiscal year 2003-2004, the division received no state funding for vehicle or equipment replacements. Fabrication and repair of existing equipment was the focus.

The division has a radio system based on telephone/radio control lines and dispatch consoles. Research is being conducted to examine the potential to move toward a more reliable and independent system. This project and fine tuning the existing system have been the focus for fiscal year 2003-2004. Three additional telecommunication staff members have been trained for incident management teams.

A 36-foot communications/command trailer has been constructed. This command unit serves the division in northern Florida; a second unit is placed in South Florida to provide statewide coverage.

Construction

The Construction Section provides critical planning for, and oversight of, the division's fixed capital improvement, construction and maintenance programs. This section ensures that the division's facilities can support its firefighting and forest management missions through the construction of new facilities and the inspection and maintenance of existing facilities. During fiscal year 2003-2004, an estimated 20,000 square feet of building space was constructed at a cost of approximately \$2.2 million.

A typical project is the new Lake Wales Ridge State Forest Headquarters facility completed in 2003 at a cost of \$740,000. This complex, constructed on the Lake Wales Ridge State Forest in Polk County, consists of an administrative building, shop facility and equipment shed. The new facility improves the division's capabilities for firefighting, forest management and access to the state forest.

Forestry Youth Academy

The Division of Forestry's Youth Academy at the Goethe State Forest in Levy County offers juvenile offenders the opportunity to redirect their lives toward productive goals through occupational training programs. Providing training in both forestry and life skills, the academy works to develop these juveniles into useful members of Florida's society.

The academy began operating in June 1996 and is a low-risk residential program for youthful offenders 16 to 19 years of age. The strategy employed to change participants' lives is to correct their academic deficiencies by offering them a high school program based on



competency learning. Another important element is teaching them marketable skills, such as firefighting, carpentry, small engine repair, welding, heavy equipment operations, culinary arts and agri-science. Moreover, the academy teaches life skills such as budgeting, cooking and job interview skills that will be useful in the years following graduation from the academy.

Since the Forestry Youth Academy is also a second-chance school, the emphasis is on learning in a work setting. By doing this, students gain important work experience, which is the foundation of a work ethic. The by-products of this training are the many projects left for forestry and local communities to use and enjoy.



Safeguarding **CONSUMERS**



Division of Consumer Services

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uring fiscal year 2003-2004, the Division of Consumer Services provided consumer information, processed complaints and promoted consumer protection. During this period, the division handled 23,607 written complaints; answered 240,468 calls; and produced 306,200 brochures, pamphlets and booklets for distribution to consumers.

The division increased public awareness by providing speakers to civic groups and organizations throughout the state. The speakers provide information on important consumer-related topics, answer questions on current frauds and scams, and provide educational materials on a variety of topics. In addition, the division utilizes its web site www.800helpfla.com to educate consumers and businesses. Consumers can obtain information concerning the many areas the Department regulates and find out what their rights are under these laws. Consumers also learn how to file complaints to have their disputes resolved.

Businesses have access to licensing and registration information, as well as the forms necessary to comply with applicable regulations.

The Department also functions as the U.S. Consumer Product Safety Commission's liaison in Florida regarding product recalls, inspections and investigations.

Call Center

The Call Center's 20-person staff maintains and operates the Department's toll-free consumer hotline, 1-800-HELP-FLA (1-800-435-7352), and the Spanish hotline, 1-800-FLAYUDA (1-800-352-9832). Call Center personnel track and analyze data to provide current information to callers. During fiscal year 2003-2004, the Call Center answered 240,468 calls from consumers and businesses. Eighty-three percent of callers responding to surveys ranked the Call Center's service as outstanding.

The Call Center assists individuals daily with consumer-related issues, providing up-to-date information or referring callers to the appropriate governmental agency. Consumer questions cover various areas the Department regulates, such as business opportunities, dance studios, game promotions, health studios, intrastate moving, motor vehicle repair, Florida's Do Not Call program, pawn shops, sellers of travel, solicitation of charitable contributions, telemarketing and the motor vehicle Lemon Law. Call Center analysts respond to inquiries on a myriad of subjects such as landlord/tenant issues, buying clubs, and retail store regulations. Staff utilizes the Department's computer database to develop statistical information on the frequency and type of calls received. Each call is logged under a specific subject category in the database, which allows the Department to track the most prevalent consumer issues. This record of relevant consumer complaints enables consumer education efforts to be tailored to specific topics or areas.

Consumer Complaints

The Bureau of Mediation and Enforcement processes all consumer complaints filed with the Division of Consumer Services. Complaints are received online and via mail, and deal with a variety of subjects. Division staff attempt to



resolve disputes through informal mediation and review complaints for compliance with applicable laws. The top five complaint categories during fiscal year 2003-2004 were: telephone sales solicitations (Do Not Call), sellers of travel, motor vehicle repair, health studios and telemarketing.

During fiscal year 2003-2004, staff processed 16,051 complaints filed against entities regulated by the division and recovered \$2,144,258 in money and property for consumers. In addition, another 7,556 complaints filed against non-regulated businesses were processed, which resulted in \$55,000 in refunds to consumers.

New Motor Vehicle Lemon Law

The Department administers the Florida New Motor Vehicle Warranty Enforcement Act, commonly known as the "Lemon Law." Personnel respond to consumer complaints and inquiries, provide information about the Lemon Law, and determine whether claims are potentially eligible for state arbitration before the Florida New Motor Vehicle Arbitration Board.

The Department also provides certification to motor vehicle manufacturers who establish informal dispute settlement procedures in compliance with applicable

federal and state statutes. In fiscal year 2003-2004, the Department re-certified informal dispute settlement procedures for General Motors, Honda/Acura, Lexus, Nissan/Infinity, Rolls Royce, Bentley, Saab, Volkswagen/Audi, American General/Hummer, Isuzu, Hyundai, Kia Motors, Saturn and Workhorse Custom Chassis. These manufacturers utilize the Better Business Bureau Autoline program. Porsche and Toyota were also re-certified. These manufacturers utilize the National Center for Dispute Settlement program. Each of these programs is audited throughout the year for compliance.

During fiscal year 2003-2004, the division answered 21,532 telephone calls on the Lemon Law hotline, 1-800-321-5366. The division also processed 1,299 requests for state arbitration and reviewed 3,272 consumer cases that were processed through manufacturers' informal dispute programs.

Regulated Programs

The Department is responsible for regulating a variety of industries operating in Florida, including business opportunities, dance studios, game promotions/sweepstakes, health studios, intrastate moving, motor vehicle repair shops, Florida's Do Not Call program, pawn shops, sellers of travel, solicitation of contributions, and telemarketing. These programs are designed to protect consumers and the integrity of each industry. Industry members must submit a registration/license application or similar filing, and in some cases a surety bond, certificate of deposit, or letter of credit to ensure consumer refunds in the event a business defaults.

Business Opportunities

The Business Opportunities Program requires individuals who sell or lease any products, supplies or services for the purpose of starting a business to register and disclose certain information to prospective purchasers. Some sellers must also submit a \$50,000 surety bond, certificate of deposit or letter of credit. In fiscal year 2003-2004, the Department registered 1,507 sellers of business opportunities, processed 835 written complaints, recovered \$186,461 in consumer refunds, and collected \$17,500 in administrative fines.

Dance Studios

The Dance Studio Program requires all ballroom dance studios to register with the Department. In some instances, registrants are required to post a surety bond, certificate of deposit, or letter of credit. For fiscal year 2003-2004, the Department registered 128 dance studios, processed 34 written complaints, recovered \$7,180 in consumer refunds and collected \$2,000 in administrative fines.

Game Promotions

The Game Promotions Program requires operators who conduct contests, games of chance, or gift enterprises in connection with the sale of consumer products or services to file with the Department. Unless they have been granted a waiver by the Department, they are also required to either establish a trust account or obtain a bond in an amount equivalent to the total value of all prizes offered. During fiscal year 2003-2004, the Department processed 3,608 game promotion filings, received 107 written complaints and collected \$435,150 in administrative fines.

Health Studios

The Department regulates health clubs that offer health club activities or physical exercise equipment. Some health studios are required to post a \$50,000 surety bond, certificate of deposit, or letter of credit to satisfy consumer claims that may result from violations of Florida law. During fiscal year 2003-2004, the Department registered 1,289 health studios, processed 1,467 written complaints, recovered \$67,013 for consumers and collected \$14,085 in administrative fines.

Intrastate Moving

The Department regulates intrastate moving companies operating in Florida. During fiscal year 2003-2004, the Department registered 843 moving companies, processed 551 written complaints, recovered more than \$100,000 in consumer refunds and collected \$45,800 in administrative fines.

Motor Vehicle Repair Shops

The Department regulates all motor vehicle repair shops in Florida in accordance with the Motor Vehicle Repair

Act. This law requires an estimate and invoice form be provided to consumers for repair work exceeding \$100, which enables consumers to make informed decisions about their motor vehicle repairs. During fiscal year 2003-2004, the Department registered 21,550 motor vehicle repairs shops and conducted more than 3,481 on-site investigations. The Department processed 2,227 written complaints, recovered \$263,812 for consumers and collected \$130,572 in administrative fines.

Do Not Call

The Florida Do Not Call law is a privacy law enacted to protect consumers from unwanted telephone solicitations and pre-recorded messages. Consumers can subscribe to the Do Not Call List for an initial fee of \$10, with a \$5 annual renewal fee. Subscribers may file a complaint with the Department for any unwanted phone calls they have received from non-exempt businesses. Consumers may also file a complaint if they receive pre-recorded messages. At the end of fiscal year 2003-2004, there were 160,720 consumers on the Florida Do Not Call List. The program processed 5,521 written complaints.

During the fiscal year, a total of 54 cases of Do Not Call violations were referred to the Office of General Counsel for prosecution. During this period, 23 cases were resolved through settlement or court judgment, and a total of \$247,876 was collected in civil fines.

Pawn Shops

The Department licenses all pawn shops operating in Florida pursuant to the Florida Pawnbroking Act. Each pawnshop must maintain a net worth of at least \$50,000 or file a \$10,000 security in the form of a surety bond, certificate of deposit, or letter of credit. During fiscal year 2003-2004, the Department licensed 1,152 pawn shops and collected \$29,000 in administrative fines.

Sellers of Travel

The Department regulates travel agencies in Florida for compliance with the Sellers of Travel Act. Sellers of travel are required to submit a performance bond, certificate of deposit, or letter of credit in an amount not to exceed \$25,000, or \$50,000 if they sell vacation certificates. A seller of travel that has been in business for at least five

years and meets certain other requirements may apply for a security waiver. In addition, independent agents must submit annual filing statements to the Department. During the 2003-2004 fiscal year, 2,176 sellers of travel and independent agent registrations were received. The Department processed 4,663 written complaints, recovered \$1,307,466 in consumer refunds and collected \$81,350 in administrative fines.

Solicitation of Contributions

The Solicitation of Contributions Act requires charitable organizations, sponsors, professional fund-raising consultants and professional solicitors to register with the Department. During fiscal year 2003-2004, the Department processed 10,704 registrations for charitable organizations, sponsors, professional solicitors and fund-raising consultants. The Department also processed 134 written complaints and collected \$51,185 in administrative fines.

Telemarketing

The Florida Telemarketing Act requires non-exempt telemarketers to obtain a license from the Department and submit a \$50,000 surety bond, certificate of deposit, or letter of credit. During fiscal year 2003-2004, the Department licensed 824 businesses and individuals, processed 764 written complaints and recovered \$203,850 for consumers.

Investigations

The Investigations Section conducts investigations of noncompliant businesses and responds to consumer complaints. The priority for this group is to ensure businesses operate in compliance with applicable laws. This group also investigates businesses suspected of fraud and deceptive trade practices. High-volume cases for the year include motor vehicle repair and intrastate moving. During fiscal year 2003-2004, this unit conducted 2,090 onsite investigations in 27 counties as part of Operation ReCON (Register County Occupational Names). Information from the Division of Consumer Services database was electronically reconciled with information from county occupational licensing offices to determine those businesses that should be registered or licensed. Investigators found 306 businesses that had failed to

renew their registrations, and another 282 new businesses operating without being registered. The Department collected \$37,950 in registration fees. The high-volume cases for Operation ReCON were motor repair, sellers of travel, and intrastate moving. Also during this past fiscal year, the Investigations Unit initiated 640 investigations covering a variety of topics.



Consumer Education

The Division of Consumer Services continued to promote its educational outreach programs aimed at increasing public awareness of consumer protection issues among Florida citizens. During fiscal year 2003-2004, the division provided 306,000 assists to consumers and businesses statewide through a variety of formats, including television, radio, newspaper, brochures and public presentations. Division representatives gave public presentations on consumer-related topics to more than 2,300 consumers representing various groups and organizations throughout the state. The division also revamped its web site to include relevant information to businesses and consumers on various laws, as well as current frauds and scams. The division's educational efforts focus on making individuals better consumers and helping them make more informed decisions when purchasing products and services and signing contracts. The division also functions as the U.S. Consumer Product Safety Commission's liaison in Florida regarding product recalls, inspections and investigations.

Division of Standards Petroleum Inspection

The Department regularly conducts inspections of the petroleum distribution system and analyzes samples of petroleum products to ensure that consumers are offered quality products at fair measure.

In fiscal year 2003-2004, more than 99 percent of the samples collected and analyzed from 13 billion gallons of petroleum fuel distributed throughout Florida met state standards, which are considered among the strictest in the nation. The Department issued 309 stop-sale orders to prevent the sale of 550,000 gallons of substandard fuel.

In May 2004, a sudden infusion of contaminated gasoline that damaged many consumers' fuel gauges prompted the Department to adopt an emergency rule requiring additional standards for gasoline. A stepped-up inspection program facilitated quick removal of the product from distribution. The Bureau of Petroleum Inspection monitored the restitution program set up by the suppliers of the damaged product. The newly adopted standards and stricter controls on products coming into the state now prevent a repeat of such an incident.

The quality of gasoline, kerosene, diesel and fuel oil are determined at Department laboratories through analyses of octane rating, distillation, vapor pressure, sulfur content and flash point.

Laboratory personnel analyze antifreeze for corrosion, freezing point, boiling point and chemical content as part of the antifreeze registration and regulatory program. Similarly, brake fluid also must pass strict standards for boiling point, elastomer swelling and chemical content before being registered by the Department for sale to the public. The Department registered 361 brands of antifreeze and brake fluid as acceptable products to be marketed in Florida.

In all, laboratory analysts at Department laboratories in Tampa, Tallahassee and Port Everglades analyzed 45,465 samples of petroleum fuels, antifreeze and brake fluid. Department inspectors conducted 185,497 petroleum inspections on retail dispensers at 9,250 petroleum facilities throughout Florida. Inspections included calibrating tests, proper installations and maintenance of measuring devices and labeling of petroleum dispensers. As a result of these inspections, 4,250 pumps were taken out of service because of improper calibration and 17,700 correction notices were issued for poorly maintained pumps.

The Department handled 4,775 petroleum-related consumer complaints as a result of posting the 1-800-HELPFLA consumer hotline decal on petroleum dispensers. Complaints have concentrated on fuel quality, meter accuracy and price. The field staff is charged with responding to these complaints within 24 hours.

The Department continues to use numerous fraud investigation techniques including the deployment of undercover vehicles to ensure that consumers receive fair measure from petroleum pumps. The unmarked vehicles have a specially designed and calibrated gasoline tank that enables a trained inspector to determine a pump's calibration without a service station operator's knowledge. The undercover vehicles have confirmed that most petroleum pumps are accurate and consumers are receiving fair measure.

Weights and Measures

The Department performed inspections and tests on over 55,000 weighing and measuring devices, including retail scales, prescription balances, livestock scales, truck scales and taximeters. Of those inspected, 6,350 were found out of compliance with state standards and ordered corrected; another 1,362 were immediately taken out of service.

Department inspectors routinely check the accuracy of net contents and labels of packaged goods such as dry goods, standard-pack food commodities, household items, building and construction materials, gardening products and hundreds of other products purchased daily by consumers and businesses in the state. In fiscal year 2003-2004, inspectors sampled lots representing over 760,000 packages with a value exceeding \$2 million. Stop-sale orders were placed on over 75,000 packages that contained less than the stated contents or failed to provide the required information on the label. Many more packages were recalled or re-labeled by producers as a result of Department inspections.

Inspectors randomly tested 16,960 items for price accuracy in 335 businesses, primarily grocery, department, discount, drug, building supply and other retail stores. Overall results showed that 1.24 percent scanned at more than the posted price and 1.12 percent scanned at less

than the price advertised. Violations were corrected immediately, and 35 businesses that failed to meet the 98 percent national accuracy standard faced additional sanctions and testing.

The weights and measures field inspection and regulatory program continued to develop and utilize an automated inspection data collection system. The system enables the program to utilize resources more effectively in targeting areas of lower compliance.

In the state metrology laboratory, the state primary standards of mass, length and volume were used in comparing and calibrating more than 11,900 devices used by state inspectors, laboratories, high-tech industries and commercial scale repair agencies, as well as 792 test measures used to check the accuracy of gas pumps and wholesale meters. The laboratory maintained its accreditation by the National Voluntary Laboratory Accreditation Program, which was obtained in 2003; it is one of a select few state metrology laboratories that has achieved this accreditation. The lab provides Florida citizens and industries with calibration services traceable to the national standards, while performing special tests such as standardizing grain samples for use in testing moisture-determining equipment at commercial grain elevators.

Fair Ride Inspections

The Department has an amusement ride inspection program which, by reputation, is the most comprehensive amusement ride inspection program of any state in this country.

All amusement rides, except those at theme parks, which are exempt by law, are inspected and permitted each year by the Bureau of Fair Ride Inspections. Permanent amusement rides — those located at a fixed site — are inspected twice each year. Temporary amusement rides, such as those used by carnivals, are inspected each time they are moved or are set up.

The Department has 15 inspection specialists who are stationed statewide and who inspect and permit amusement rides. Department inspectors are constantly trained with: recurring on-the-job training; structured



This committee holds at least two public meetings annually to discuss safety issues, ride inspections, ride equipment, industry concerns and other matters in support of the Department's inspection program.

Each year, the Department participates in a consultation program with the large theme parks in Florida on safety issues. Department staff visit each of the parks and review safety, maintenance and operation procedures of the park rides. Furthermore, the theme parks file with the Department an affidavit of annual inspection on all their rides. The Department is a member of the American Society of Testing and Materials, Committee F-24, which develops standards for the manufacture, fabrication, performance and testing of amusement rides and devices. The Department is also a member of the Council for Amusement and Recreational Equipment Safety (CARES), which is a national association of government regulatory officials that shares information among members, and works with the U.S. Consumer Products Safety Commission on amusement ride issues.

LP Gas Inspection

During fiscal year 2003-2004, the Bureau of LP Gas Inspections issued 9,939 licenses and renewed 696 examination qualification certificates. Department

training seminars developed by the Department; and continuing education seminars sponsored by the amusement industry, amusement ride manufacturers, safety organizations, and engineers or other subject matter experts.

In fiscal year 2003-2004, the Department issued permits for over 1,700 amusement rides and conducted 9,932 inspections statewide. Those inspections identified over 13,000 deficiencies on those amusement rides, all of which were corrected before the rides were allowed to open for public use. The Department issued 429 stop-operation orders for unsafe, uninsured or uninspected amusement rides. The Department also investigates accidents and mechanical failures involving amusement rides and, when appropriate, closes and impounds unsafe amusement rides.

The Florida Amusement Device and Attraction Advisory Committee was created by the Commissioner of Agriculture to advise and consult with the Department on amusement ride issues. This committee, which is appointed by the Commissioner, includes a cross section of members from the amusement industry, fair industry, amusement parks, and technical or subject matter experts.



personnel conducted 8,195 LP gas facility inspections; conducted 1,281 investigations into illegal activities, complaints and accidents; and administered 1,307 examinations. The Department took 4,480 enforcement actions, including 2,210 notices of noncompliance, 256

red tags, 130 letters for incomplete licensing requirements, 88 administrative complaint actions, 1,848 cease-and-desist notices, and 19 notices of intent to suspend license.

As a part of the industry and consumer outreach programs, the Department published and distributed consumer brochures on gas grill safety, home heating safety, safe living with propane, and reporting of residential LP gas system changes to gas suppliers.

Division of Licensing

The Division of Licensing administers two programs that benefit Floridians. First, the division protects Florida consumers by licensing and regulating individuals and business entities in the private security, private investigative and recovery industries in Florida. Second, the concealed weapon licensing program enhances personal and public safety through the issuance of concealed weapon licenses to qualified, law-abiding individuals who wish to carry a concealed weapon for lawful self-defense.

Licensing and regulatory activities are extremely paper-intensive, and the Division of Licensing operates and maintains a state-of-the-art electronic document management system to maximize efficiency in its handling and storage of the millions of documents in its files. Known for its technological innovation, the division continued this past fiscal year to enhance its technology to develop new and better ways to serve citizens, consumers and licensees. For example, a budget appropriation of \$2.1 million allowed the division to purchase electronic fingerprint capture devices for placement in each of Florida's 67 county sheriff's offices. This gives applicants the choice of having their fingerprints taken by the traditional ink-and-roll method or having their prints electronically scanned. Submitting scanned fingerprint images results in vastly improved service to the applicant: the time required to receive criminal history background check results from the Florida Department of Law Enforcement and the FBI is reduced from an average

Known for its technological innovation, the division continued this last fiscal year to enhance its technology to better serve citizens, consumers and licensees.

In fiscal year 2003-2004, the division experienced a 12 percent increase in demand, receiving just over 160,000 applications for new and renewal licenses, the highest number of applications ever received in a single year. The number of new and renewal licenses issued totaled just under 158,000. By the end of the year, the licensee population had reached record-high totals: there were 334,365 concealed weapon license holders, while the number of individuals and businesses in the regulated industries had climbed to 131,367. The substantial increases in the number of applicants and licensees are reflected in the increased number of contacts with the public. The division's Public Inquiry Section, which serves as the Division of Licensing's call center, responded to 125,430 telephone calls in fiscal year 2003-2004, a 28 percent increase over the number of calls answered in the previous fiscal year.

of 60 days to 48 hours in most instances. Electronic fingerprint services continued to be provided by the division's regional offices. The division was one of the first entities to submit electronic fingerprints for civil applicants in Florida and recently surpassed the 10,000-submission mark.

The division also implemented the use of optical character recognition technology to assist in reading and capturing applicant information and fiscal data from the pages of incoming paper documents. Incoming applications are processed much more quickly and accurately as a result. Division management approved a correspondence quality control program that is still ongoing in the Bureau of License Issuance; the project has improved the accuracy of application processing and has helped to ensure that

the bureau's monthly outgoing correspondence of some 1,500 documents is standardized and uniform. Finally, via its web site, the division created the Licensing Information and Alert System, a means of allowing licensed businesses in the regulated industries to maintain up-to-date emergency contact information on file with the division. This web site capability was developed as part of the Department's initiative on disaster planning and emergency preparedness. In the event that the division's ability to provide services is threatened, licensees in the regulated industries can be notified using the Licensing Information and Alert System and can be informed about how to proceed until the division's normal operations can be resumed.

While implementing these technological refinements for the benefit of citizens and licensees, the division also remained intently focused on its obligation to protect the public by keeping unqualified and unscrupulous individuals from being licensed to carry concealed weapons or to do business in the regulated industries. This obligation is met in a number of ways. First, the division denies licenses to applicants who do not have proper qualifications or who have a disqualifying criminal history. Last year, the division denied licenses to 5,386 applicants, a 39 percent increase over the number of denials issued the previous fiscal year. Then, to ensure that only law-abiding citizens remain eligible to be licensed, the division regularly compares its licensee database to arrest and conviction records provided by the Florida Department of Law Enforcement, the Department of Corrections, and the Department of Highway Safety and Motor Vehicles. If a licensee is determined to have committed a disqualifying crime or adjudicated incapacitated, that individual's license is immediately revoked or suspended. In addition, the division's regional offices perform routine fieldwork necessary to ensure that individuals and businesses in the regulated industries continue to operate in a manner consistent with the public interest. In fiscal year 2003-2004, investigators in these offices conducted 1,624 complaint investigations, which reflected a decrease of 10 percent in the number of complaints received from

2002-2003. However, they completed 6,283 compliance inspections, a 66 percent increase over the previous year. The division's monitoring of arrest and conviction records, combined with the investigative activities of its regional offices, resulted in 2,884 license suspensions and revocations for violations of the law during 2003-2004, a 10 percent increase over last year.

Florida's weapons and firearms law includes a reciprocity provision that allows Florida to honor the concealed carry licenses issued by another state as long as that other state agrees to honor Florida licenses. This program, implemented in 1999, ensures that law-abiding, duly licensed citizens — either Florida citizens heading out of state, or non-residents coming to Florida for business or pleasure — retain the right to carry a firearm in order to protect themselves and their families while traveling. In fiscal year 2003-2004, the division negotiated reciprocity agreements with six additional states, bringing the total number of states with which it has such an agreement to 26.



Promoting **EMPLOYEE EXCELLENCE**



Training and Development

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o ensure optimal service to the citizens of Florida, the Florida Department of Agriculture and Consumer Services invests in its employees by providing numerous training, educational and recognition opportunities. This supportive environment contributes to the superior level of personal commitment and professional pride of its staff.

Training

To provide the highest quality of service, the Department continuously trains its employees, thus increasing their knowledge, skills and abilities. This year, a total of 1,376 employees participated in Department-wide training classes, such as New Employee Orientation, Team Building, Stress Management, Time Management, Customer Service, Diversity, Leadership, Department Supervisory Standards, Train-the-Trainer, Advanced Train-the-Trainer, Mentoring, CPR/AED and various computer software titles.

Additionally, 165 user licenses and 31 technical licenses were issued to employees to allow their participation in Internet-delivered computer classes offered by Element K.

The Training and Development Section also assisted other divisions with their design, development, and evaluation needs.

Education

Fifty-one employees continued their education by taking work-related classes and received tuition reimbursement from the Department, and 91 employees participated in the state's tuition waiver program. These employees further developed their ability to contribute to the Department by taking classes at universities, community colleges and technical centers throughout the state.

A total of 49 Department managers participated in the Certified Public Manager Program. This two-year program is a systematic approach to training and developing governmental administrators in order to improve their performance and the performance of government. Since the Department's initial participation in the program, 187 employees have received the designation of Certified Public Manager after successfully completing the program.

Awards

The Department not only encourages life-long learning, it rewards those who attain exemplary achievements. Twenty-one Davis Productivity Award nominations were submitted detailing the extraordinary efforts of 154 individuals whose initiative and hard work saved the Department approximately \$449,438 this year. Additionally, the entire Department was recognized for implementing the AIMS system.

Employees are also recognized for their length of service to the Department. Approximately 481 employees were awarded certificates for their continued service to the Department.

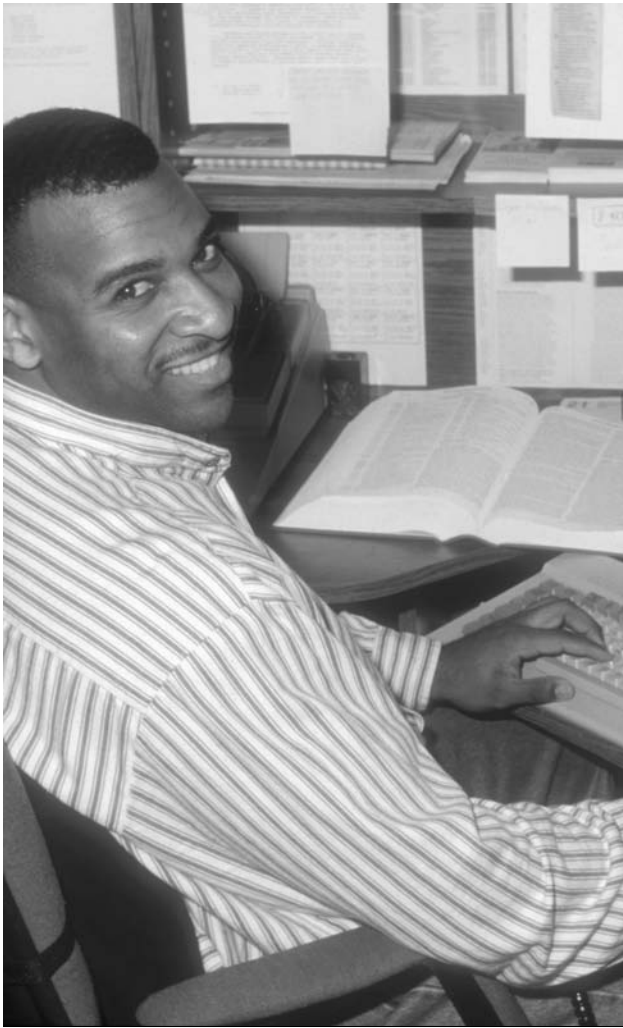
Davis Productivity Award

The Department satisfied the need for a cost-effective solution to record storage, storage space and lost documentation problems by developing (along with an outside consultant) the state's first Imaging Management Work Process System for purchasing/requisitioning and disbursement/vouchering with other administrative



components in the areas of leasing and developing contracts. The Department was awarded a Davis Productivity Award Certificate for recognition in 2004 in the Agency of the Year category.

The system attributes include: a web-based, paperless processing of purchase requisitions and disbursement/vouchering; online management approval; ease of document retrieval and storage for research; expedited pay process; and potential sharing of imaged documents with the Department of Financial Services in support of vendor payments. Further, it consists of other paperless functions such as contract development, tracking and leases. The



application also allows for the imaging of supporting documents as well as the creation of virtual documents that don't require imaging. Each of the individual modules allows for online approvals by managers and for online retrieval and research of documentation.

Additional benefits include outstanding customer service to the different program staff within the Department; ease in researching and retrieval of documentation associated with purchase orders and contracts executed by the Department; reduced storage requirements for record retention; and the elimination of lost documents. This application could be utilized by all state agencies, some of which have already expressed an interest, and demonstrates the Department's and state's initiative to automate workflow processes and maximize technology to improve efficiencies within state government.

Minority Businesses

The Department spent approximately \$6 million with certified minority businesses during fiscal year 2003-2004. This figure indicates that the Department achieved approximately 166 percent of its minority business spending goal for the fiscal year. For 11 of the last 12 fiscal years, the Department has exceeded its established minority spending goal.

CIO, AGMIC and Administration

If an agency did not have business requirements, the Information Technology (IT) function would be reduced to nothing but e-mail. IT is an enabler of business. It allows for a faster, more accurate and efficient way of organizing and retrieving data.

The Chief Information Officer (CIO), Agricultural Management Information Center (AGMIC) and the Division of Administration's IT staff provide the backbone for services that are delivered by the Department to its customers. Most of the IT functions performed by the Department do not have a direct affect on agriculture, but without them, the Department would move back a few decades.

The only interaction the IT group has with the public is through the Department's web site. The official web site of the Department, www.doacs.state.fl.us, processes over a million transactions a year. The Department's web site will expand to the e-commerce center in 2004. This will allow external customers to register and pay for Department services online at www.fl-ag-online.com.

Office of Inspector General

The Office of Inspector General (OIG) provides a central point for coordination of and responsibility for activities that promote accountability, integrity and efficiency in government.

Auditing Section

Key auditing responsibilities are to: assess the validity and reliability of the information provided by the Department on performance measures and standards, and make recommendations for improvement, if necessary; provide direction for, supervise and coordinate audits and management reviews relating to the programs and operations of the Department; keep the Commissioner informed, recommend corrective action, and report on



progress of corrective action concerning fraud, abuses, and deficiencies relating to programs and operations administered or financed by the Department; and conduct, supervise or coordinate other activities carried out or financed by the Department for the purpose of promoting economy and efficiency in the administration of, or preventing and detecting fraud and abuse in its programs and operations.

Internal audit activities are performed in accordance with the Standards for the Professional Practice of Internal Auditing as published by the Institute of Internal Auditors. Audit projects involving information technology are also conducted in accordance with Standards for Information Systems Auditing as published by the Information Systems Audit and Control Association.

Investigation Section

The Office of Inspector General's key investigation responsibilities are to: initiate, conduct, supervise, and coordinate investigations designed to detect, deter, prevent, and eradicate fraud, waste, mismanagement, misconduct, and other abuses within the Department; receive complaints and coordinate all activities of the Department as required by the Whistle-blower's Act; receive and consider all other complaints and conduct, supervise, or coordinate such inquiries, investigations, or reviews as the Inspector General deems appropriate; conduct investigations and other inquiries free of actual or perceived impairment to the independence of the

Inspector General or the Inspector General's office; and submit in a timely fashion final reports on investigations authorized by the Inspector General to the Commissioner.

The Office of Inspector General's Investigation Section conducts timely and efficient internal investigations of alleged administrative and criminal employee misconduct in matters relating to the Department. The complaints, which serve as grounds for an investigation, can be received from the Commissioner's staff, division directors, supervisory personnel, employees, whistle-blowers, the Get-Lean hotline, business entities regulated by or doing business with the Department, and private citizens. Depending on the nature of the allegations and the evidentiary indications contained in the complaints, OIG investigations may fall into one of the following categories: 1) Preliminary Inquiries, which are conducted in circumstances when it is necessary to determine the validity of a complaint prior to the initiation of a formal investigation; and 2) Inspector General Investigations, which include: formal investigations conducted in accordance with Florida statute and/or OIG/Department policy and procedures; sexual harassment investigations; discrimination investigations; Forestry Youth Academy investigations; and Whistle-blower investigations.

During fiscal year 2003-2004, the Investigation Section assumed 14 cases carried over from the previous year, opened 95 new cases, closed 83 cases, and carried forward four cases to the next fiscal year.